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The Secret Air War Over France **USAAF Special Operations Units** **in the French Campaign of 1944**

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USAAF Special Operations Units in the French Campaign of 1944

**A Historical Case Study of the Role of Air Force
Special Operations Forces in High-Intensity Conflict**

by

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Abstract

This paper presents a historical account of the operations of United States Army Air Forces (USAAF) special operations units in the French campaign of 1944. The purpose of this paper is twofold. First, it is intended to be a brief history of the creation, development, and combat record of these units. Second, it is intended for use as an example of the utility and effectiveness of air force special operations in high-intensity conventional warfare.

The narrative basically begins in early 1943, as the western Allies began making plans for the invasion of Normandy. At the request of the Office of Strategic Services (OSS), the USAAF commands in the United Kingdom and North Africa secretly organized a small number of special operations squadrons for use in covert operations over France. Their overall mission was to provide specialized airlift for clandestine warfare activities intended to support the conventional ground forces during the critical days and weeks immediately after D day.

From October 1943 through September 1944, these squadrons flew thousands of clandestine missions, parachuting guerrilla warfare teams and intelligence agents deep behind German lines, dropping weapons, ammunition, explosives, and other supplies to French resistance fighters, and extracting teams from enemy territory.

The USAAF squadrons, operating in conjunction with similar British squadrons, enabled American and British special forces and French irregular units to operate with great effectiveness in the vulnerable rear areas behind German lines. The author shows that the USAAF special operations units made a significant contribution to the decisive Allied victory in the French campaign by providing essential support for a wide range of Allied special operations and covert intelligence activities. The combat record of USAAF special operations units in France demonstrated and validated the important and unique role of Air Force Special Operations Forces in high-intensity conventional warfare.

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Introduction

The United States Air Force Special Operations Forces (AFSOF) are considered by most Air Force leaders, strategists, and planners to be highly trained, well equipped, and realistically exercised combat forces primarily suited for employment in the various types of low-intensity conflicts (LIC) that exist in the turbulent world today. When the subject of United States Air Force's (USAF) readiness to employ air power for counterterrorism, foreign internal defense, or peacetime contingency operations comes up, the majority of Air Force officers readily point to AFSOF as the USAF's front-line capability for LIC. Though not an unreasonable response, this perception unfortunately sustains an incomplete assessment regarding the full capabilities of AFSOF. Undeniably, AFSOF has a major combat role in LIC but that is only part of the story. AFSOF is also organized, trained, equipped, and exercised for employment in high-intensity conventional conflicts. AFSOF, employed in joint operations with the special operations forces (SOF) of the US Army and Navy, has a unique and valuable role to play in conventional warfare.

Unfortunately, the role of AFSOF in this type of conflict has not been widely recognized or understood by the mainstream Air Force leadership. I believe a fundamental cause for this misunderstanding has been the lack of factual, detailed documentation describing the effective use of AFSOF in past high-intensity conventional warfare. This paper is an attempt to begin to fill this void. Like so much of what we have learned and believe about the proper employment of air power, this historical case study draws on the rich experience of the United States Army Air Forces (USAAF) in World War II.

In the fall of 1943 as the Western Allies prepared for the cross-Channel invasion of Normandy, the USAAF commands in the United Kingdom and North Africa secretly organized a small number of special operations squadrons for use in covert operations over France. Their overall mission was to provide specialized airlift for clandestine warfare activities intended to support the conventional ground forces during the critical days and weeks immediately after D day.

From October 1943 through September 1944, these squadrons flew thousands of clandestine missions, parachuting guerrilla warfare teams and intelligence agents deep behind German lines, dropping weapons, ammunition, explosives, and other supplies to French resistance fighters, and extracting teams from enemy territory. With an average force strength of less than 40 aircraft, the special operations units made a significant contribution to the decisive Allied victory in the French campaign by providing essential support for a wide range of Allied special operations and covert intelligence activities. These few Army Air Forces (AAF) squadrons enabled American and British special forces and French irregular units to operate with great effectiveness in the vulnerable rear areas behind German lines. The combat record of USAAF

special operations units in France demonstrated and validated the important and unique role of AFSOF in high-intensity conventional warfare.

One purpose of this paper is to document the history of USAAF special operations in the French campaign. This is one of the least-known chapters in the air war over Europe. It is also one of the forgotten chapters in the history of the USAF. Yet, this episode marks the origin of special operations as a role in American air power. Little has been written on the subject, and much of what has been published is inaccurate or incomplete. Several items covered herein are being presented for the first time.

History is important, more so if it has relevance for today and tomorrow. The main purpose of this study, therefore, is to provide today's USAF leaders, strategists, and planners with an example of AFSOF employment in high-intensity conventional warfare. AFSOF is already recognized as an effective and necessary capability for LIC operations. LIC occurs far more frequently than conventional wars, and there is no debate that AFSOF must remain prepared for employment in these difficult situations. However, AFSOF also has an important and unique role in high-intensity confrontations. I hope that this paper will give food for thought whenever USAF leaders, strategists, and planners consider their air power options in response to high-intensity conventional conflicts.

Overlord

The Assault on Fortress Europe

Ever since they were expelled from the European continent in June 1940, the British had contemplated a cross-Channel invasion to attack the Germans in northwest Europe. British military weakness in the face of overwhelming German military might made that idea unrealistic in the early war years and Britain turned her attentions elsewhere.¹ In 1941 the British engaged the Germans and Italians in the western desert, leaving the task of a direct assault on Germany to the Royal Air Force (RAF) Bomber Command. With her forces fully challenged by Rommel in Libya and having felt the ferocity of German coastal defenses at Dieppe, Britain dismissed the idea of a cross-Channel invasion for 1942.

America's entry into the war brought American pressure for a cross-Channel invasion at the earliest possible date. In contrast to Britain's cautious approach and resulting indirect strategy, the Americans, led by US Army Chief of Staff Gen George C. Marshall, wanted to attack the Germans in a direct all-out assault on the coast of northwest Europe, followed by a decisive offensive aimed at Germany itself. American military weaknesses and the dominance of British military influence in 1942 forced the American Joint Chiefs of Staff (JCS) to put off the notion of a cross-Channel attack in 1942.² Instead, the Americans reluctantly joined the British in a series of invasions and land campaigns in the Mediterranean.³ However, even as the Anglo-

American armies moved from North Africa to Sicily to Italy in 1943, American military leaders sought to shift the focus of the war in western Europe back to a cross-Channel attack. During the various high-level war councils of 1943, the Western Allies finally agreed to an invasion of northwest France for May 1944, with a simultaneous supporting invasion of southern France.⁴

In Spring 1943, the British and Americans established a formal invasion planning staff in London. To direct the planning, British Lt Gen Frederick C. Morgan was appointed as chief of staff to the supreme allied commander (designate) or COSSAC.⁵ Throughout the remainder of 1943 COSSAC developed the general concepts for Operation Overlord, the cross-Channel invasion of France through Normandy. The invasion of southern France, Operation Anvil, was the responsibility of a special staff (later called Task Force 163) of Allied Force Headquarters (AFHQ) in the Mediterranean.⁶ COSSAC ensured that Anvil planning by AFHQ was in complete agreement with the requirements of Overlord.

As COSSAC developed plans for Overlord, it became apparent that the success of the invasion would depend greatly on several major ancillary or supporting operations.⁷ The tenacity and competence of the German Army had been repeatedly demonstrated to the Western Allies from Dieppe to El Alamein, from Kasserine to Cassino. An Allied assault on Normandy, it was assumed, would be met with fierce and formidable resistance. The German high command was well aware of the Allies' intention to launch an assault somewhere in western Europe, and it steadily improved and expanded its defenses in France. The invasion planners of COSSAC recognized that the success of the assault might very well depend on the effects of the various supplementary operations being planned.

When Gen Dwight D. Eisenhower took over direction of Overlord, as supreme commander, Allied Expeditionary Forces in January 1944, he too was extremely concerned that his forces might be overwhelmed in the critical early days and weeks of the invasion.⁸ Eisenhower's divisions would be most vulnerable during the initial phase of the invasion, before the full weight of the Allied armies could be brought ashore. Like COSSAC before it, Eisenhower's newly established invasion planning and operations staff, the Supreme Headquarters, Allied Expeditionary Forces (SHAEF), promoted any reasonable supporting operations that had potential to ease the burden of the combat forces on and immediately after D day.

Among the more important ancillary efforts intended to bolster the assault forces and weaken the enemy's defenses were air power, deception, and clandestine warfare. Allied air power was needed to achieve unchallenged air supremacy as a definite prerequisite to the landings. In addition, air power was needed to "soften up" the assault defenses and slow down German efforts to reinforce the invasion front. Strategic deception schemes were needed to prevent the Germans from deducing the location and timing of the cross-Channel assault. It was hoped that deception would cause the German high command to either concentrate its main forces in the wrong place or at least spread its forces thinly, across a variety of potential landing sites. The

clandestine warfare effort involved the use of irregular forces behind German lines to conduct sabotage and guerrilla warfare operations to harass, disrupt, and divert German forces during the invasion. The armed forces of the French resistance movement would be responsible for the major portion of these operations.

The War Behind the Lines in France

Partisan activity was nothing new to warfare. In Overlord, however, there was to be a major change from irregular warfare in times past. For Overlord, highly trained Anglo-American special operations forces would be sent to France to organize the indigenous irregulars and to focus their combat operations in coordination with the overall invasion plan. Buried within the clandestine warfare effort were the highly secret espionage activities of the Allied intelligence services. Although a much smaller operation in terms of operational personnel involved, the effort to secure highly accurate information on German dispositions in France was obviously a top priority for COSSAC and SHAEF. The American contribution in the clandestine war supporting Overlord was the responsibility of a new and unique branch of the US military establishment, the Office of Strategic Services (OSS).⁹

When created in June 1942, the OSS represented an organization unlike any previous agency of the US government. The OSS was America's first centralized intelligence agency. Up to this time the US government and its military establishment had relied on a variety of intelligence organizations to provide them with foreign intelligence information. The Army, the Navy, the Federal Bureau of Investigation, and the State Department all collected foreign intelligence. Unfortunately, this disparate arrangement proved to be hopelessly uncoordinated, adversely competitive, unreliable, and unproductive. With the outbreak of war in Europe, it became clear that the United States needed a first-rate intelligence capability.¹⁰

As a solution to the untidy existing arrangement, President Franklin D. Roosevelt created the office of the Coordinator of Information (COI) on 11 July 1941. Conceived, organized, and headed by William J. ("Wild Bill") Donovan, the COI combined the foreign intelligence function and covert military operations function.¹¹ Within six months America was at war, and it became apparent that the COI could contribute more effectively to the impending military campaigns if it was a part of the US military establishment. On 13 June 1942, the COI was reorganized as the Office of Strategic Services and was subordinated to the US military as an "agency of the JCS." Donovan was appointed as director of OSS and given the rank of brigadier general.¹²

General Donovan organized OSS along functional lines. The two elements of OSS that are relevant to this study are its Secret Intelligence (SI) branch and its Special Operations (SO) branch. The Secret Intelligence branch was

responsible for collecting foreign intelligence information by covert means.¹³ The Special Operations branch was responsible for accomplishing a variety of unconventional military operations including sabotage, guerrilla warfare, and support for indigenous resistance forces.¹⁴

As early as 1941, COI had set up a large office in London. By 1942 the OSS office in London (OSS/London) had grown to become the central headquarters for all OSS operations in the European conflict.¹⁵ After Operation Torch, the OSS set up another major base of operations in Algiers (OSS/Algiers).¹⁶ In early 1943, as the Allies began to solidify their plans for an invasion and major campaign in France, the OSS operations staffs in London and Algiers began formulating plans to support the French campaign. General Donovan recognized Operation Overlord as the spearhead of the decisive effort of the European war. Accordingly, Donovan ensured that his overseas bases gave support for Overlord their unchallenged top priority.¹⁷ The OSS operations planners in London and Algiers planned to support Overlord by conducting major intelligence (SI) and unconventional warfare (SO) operations in France.

By early 1943, British intelligence was already providing the Allies with substantial information regarding German forces on the continent. The British Secret Intelligence Service (SIS) had been infiltrating its agents into France since 1940.¹⁸ During 1941-42, the COI/OSS staff in London had studied SIS methods and by early 1943 was eager to begin infiltrating its own intelligence agents into France. The Secret Intelligence Branch staff in London (SI/London) began planning for joint operations with the SIS to begin later in the year. In the meantime, the SI staff of OSS/Algiers prepared its first agent for infiltration.¹⁹

While the SI branches prepared to launch espionage missions into France, the SO branches in London and Algiers prepared their own major effort. Several types of operatives were being prepared for operations in France. Of immediate importance were SO agents who were being recruited and trained to organize French resistance forces. By 1943, a British organization, the Special Operations Executive (SOE), had been working with French resistance elements for two years.²⁰ Since March 1941, SOE F-Section (France Section) agents had been infiltrating France, contacting resistance members, organizing sabotage efforts, and generally preparing resistance forces to assist in the upcoming invasion. A major role for SOE agents was arranging for aerial delivery of weapons to arm the French irregulars.²¹ By early 1943 the SO branches of OSS/London and OSS/Algiers were eager to join SOE in this effort. With American industries beginning to turn out massive production of military supplies, the SO planners envisioned a major OSS contribution in arming the resistance forces. OSS also planned to send its own SO agents into France to assist SOE's F-Section agents in organizing additional French resistance groups and to arrange for American supply drops.²²

In addition to its F-Section agents, SO began preparing two other types of operatives for employment in France. One group was known as Jedburghs. The Jedburgh project was a combined British-American-French effort. A Jedburgh team consisted of one French officer and either two OSS men or two

SOE men. The three-man Jedburgh teams were prepared for insertion into France commencing on D day, after which they would organize and direct resistance forces in sabotage and guerrilla warfare operations against the Germans.²³ The third and last type of SO element being prepared for employment in the French campaign was the operational groups or OGs. Operational groups were the largest OSS-SO elements. Each OG consisted of four officers and 30 enlisted men. OGs specialized in ambush and guerrilla warfare tactics and were intended to bolster resistance forces or to be used in coup de main operations requiring more firepower than the smaller type teams offered.²⁴

When COI officers arrived in London in 1941 the British clandestine agencies immediately established close ties with the American newcomers. Throughout 1941 and 1942, the more experienced staffs of SIS and SOE allowed OSS officers to observe and study British operational methods. Among other things OSS officers discovered was that aircraft had become an essential element in British clandestine operations. The British were using RAF airplanes to parachute SOE and SIS agents into several German-occupied countries on the continent and to drop military supplies to various resistance groups. It was apparent to the OSS observers that clandestine airlift had become a matter of routine and an essential element in the operations of the British secret agencies. Though a new concept to the Americans in the OSS, the use of airplanes for secret operations actually had its origins in the First World War.

Winged Dagger

The Origin of Air Force Special Operations

There are several documented accounts from World War I that describe the employment of early airplanes for covert missions. The secret agents of several combatant nations used airplanes to carry them safely over the lethal dangers of "no-man's-land," after which they would be landed in open fields well behind enemy lines. In a few cases, the agent would complete his planned operation and then be picked up by an airplane sent to fetch him back to base. In at least one instance, a secret agent was dropped behind the lines by parachute from an airship.²⁵ The widespread use of aircraft for clandestine operations did not begin, however, until Germany overran western Europe in 1940.

Hitler's conquests of Poland, Denmark, Norway, France, Belgium, Luxembourg, and Holland created the situation which rapidly resulted in Britain's development of the first dedicated, specialized clandestine air capability. With German forces in control of nearly all of western Europe, the SIS needed aircraft to fly its intelligence agents deep into occupied territory.²⁶ Also, in the summer of 1940, the British created the SOE to begin organizing anti-German resistance in the occupied nations and to undertake sabotage operations

behind German lines. Like the SIS, the SOE needed the RAF to infiltrate its agents into the continent. The SOE also needed the RAF to deliver supplies to resistance cells organized by its agents.²⁷

Aircraft were not the only means of clandestine travel. Other methods included the use of fishing boats, motor torpedo boats, submarines, or on foot. Aircraft, however, offered great advantages over all other methods of infiltration. Airplanes could reach farther, travel faster, were more flexible, more reliable, and more covert than all other means of agent transportation.²⁸

In August 1940 the British Air Ministry directed the RAF to organize a small flying unit to satisfy the special requirements of SOE and SIS. No. 419 Flight was immediately established and equipped with two types of aircraft to handle the two basic types of clandestine air missions.²⁹ Small single-engine Westland Lysander liaison airplanes were used for landings behind the lines. For these "pick-up" missions, the Lysander was equipped with a long-range external fuel tank and a ladder bolted to the side of the fuselage. After reaching its destination, usually a large open field, the Lysander would land and its one or two passengers would rapidly off-load via the ladder from the cockpit. If required, up to two persons could then climb aboard for return to England.³⁰ For missions not requiring a landing in enemy territory, two-engine Whitley bombers were used. The Whitleys were modified to allow agents to parachute through a hole in the fuselage floor. The Whitleys also could drop containers and packages of supplies for resistance groups.³¹

For the next two years, the RAF continued to develop and refine the tactics and equipment for the mission they called "special duties." An important development in October 1942 was the transition from Whitleys to four-engine Halifax strategic bombers as the standard parachute infiltration and supply drop aircraft. Operational experience had shown that only this category of aircraft (four-engine heavy bombers) possessed the requisite long-range, heavy payload capacity, and defensive armament needed for secret missions over the continent.³²

As SOE and SIS needs increased, the RAF expanded its special duties force. The original special duties flight became No. 138 Squadron in August 1941 and a second special duties unit, No. 161 Squadron, was formed in February 1942. In 1943 the RAF formed new special duties units in the Mediterranean. In March, No. 148 Squadron was created in Libya for secret operations into the Balkans, Italy, and Poland. In June the RAF deployed No. 1575 Flight to Algeria for missions to Sardinia, Corsica, Italy, and southern France. In September the flight was expanded as No. 624 Squadron. The RAF special duties force was growing in size and expanding its capabilities.³³

By 1943 the British clandestine agencies were routinely being flown to dropping zones across the breadth of Europe, from Norway to Greece. Agents and supplies could be parachuted almost anywhere in German-occupied territory, and agents could be exfiltrated from almost anywhere. These were the impressive air capabilities the eager OSS operations officers in London and Algiers were exposed to as they studied British operational methods during

1941 and 1942. By early 1943, the OSS commanders were ready to begin their own large-scale operations into occupied Europe. Their plans were being developed, agents were being recruited and trained, and arrangements were being made to procure the needed supplies. The last major element needed to begin operations on the continent, and to France in particular, was their own clandestine air capability. The RAF did not have enough special duties planes for SIS and SOE requirements alone and could not begin to support OSS needs as well.³⁴ OSS needed a dedicated air capability of its own, and it needed one fast. In accordance with the established procedure, the OSS staffs in Algiers and London sought the assistance of their respective theater US Army Air Forces commands.

The US Army Air Forces in Europe in 1943

By 1943 the USAAF had deployed major combat air forces in the European and North African theaters of operations. In the United Kingdom, Maj Gen Ira C. Eaker commanded the Eighth Air Force, which was the Army Air Forces' principal strike force for its strategic daylight precision bombing offensive against Germany. At this time, the strategic bombing offensive was the undisputed, preeminent USAAF campaign of the war. Eaker's "Mighty Eighth" had been created to demonstrate the ability of air power to defeat an enemy nation by bombing alone. The commanding general of the Army Air Forces, Gen Henry H. ("Hap") Arnold, was determined that the Eighth Air Force defeat Germany by strategic precision bombing before the Allies invaded the continent. The Eighth Air Force's main weapons were B-17 and B-24 four-engine, long-range, heavy bombers. In order to accomplish its ambitious objective, the Eighth Air Force needed every heavy bomber it could get.

From AAF headquarters in Washington, General Arnold did every thing he could to procure, produce, and deploy the maximum number of heavy bombers for Eaker's command. By early 1943 Eaker's strike force included 337 B-17s and B-24s.³⁵ As impressive as this sounds, his air force was still seriously understrength, compared to the numbers it had originally been scheduled to have by this time. The Eighth Air Force was simply not getting the numbers of bomber groups and replacements it needed to accomplish its challenging goal. Diversions to the Pacific, diversions to the US Navy, diversions to Operation Torch, diversions to the Allies, combat losses, and accidents were combining to undermine the buildup of bombers in England. Nevertheless, Eaker pressed on, mounting ever-larger daylight raids into occupied Europe and beginning in January 1943, into Germany itself.

In North Africa, Lt Gen Carl A. ("Tooey") Spaatz commanded the Northwest African Air Forces (NAAF). Spaatz, the highest ranking AAF general in the

European conflict, had originally been handpicked by General Arnold to direct the Eighth Air Force offensive against Germany. When the focus of the American ground effort shifted to North Africa for Torch, Arnold ordered Spaatz to command the American air forces assigned to support Eisenhower's campaign. In North Africa, Spaatz's NAAF included Maj Gen James H. Doolittle's Twelfth Air Force. The NAAF was a combined strategic and tactical air force, having a wide variety of combat types including fighters, medium bombers, and a small number of B-17 heavy bombers taken from Eaker.

Both combat air forces were heavily engaged in combat operations in early 1943. Despite the problems with its buildup, Eaker's Eighth Air Force remained the preeminent AAF striking force, and each AAF air commander in Europe fully understood the need to support his strategic bomber offensive. This was the climate into which the OSS request for assistance was introduced.

A Special Operations Capability for Algiers

The first OSS base to secure air support from the AAF was OSS/Algiers, but the process proved to be a long and difficult one. It began in December 1942, when OSS headquarters in Washington, D.C., presented a detailed operational planning document called JCS 170/1 to the Joint Chiefs of Staff for their approval. The document outlined plans and support requirements for OSS clandestine activities in the western Mediterranean area. Under the Requirements section of JCS 170/1 was a provision requesting

Air and Sea transport for delivery and resupply of personnel and material, depending upon availability in theater, as follows: (1) Average of 3 bomber type airplanes per each moon night of the month.³⁶

In the Miscellaneous section at the back of the document it read, "Submarines, boats and airplanes will be supplied by and at the discretion of the Theater Commander."³⁷ The OSS plan was endorsed by the joint chiefs on 18 December 1942. It was then sent to AFHQ in Algiers for approval by General Eisenhower, the Allied force commander and US theater commander. On 7 February 1943, Eisenhower gave his approval in principle to the OSS plan.³⁸ If the staff at OSS/Algiers thought this meant planes were on the way, they were to be sadly disappointed. The OSS officers soon discovered that cooperation from the AAF could not be taken for granted.

During the approval process of JCS 170/1, the chief of staff of AFHQ, Brig Gen Walter Bedell Smith, had agreed to request air support for the OSS from the Mediterranean Air Command.³⁹ The request was passed to General Spaatz. Though Eisenhower had approved JCS 170/1, Spaatz deferred on the request for air support, citing higher priorities for conventional air operations. At this time the heavy bomber force in Doolittle's Twelfth Air Force consisted

of four B-17-equipped bombardment groups. With the severe shortage of heavy bombers throughout the AAF, Spaatz was less than enthusiastic about diverting any of his planes for an unfamiliar and unproven new role that did not even involve dropping bombs.

For OSS/Algiers, Spaatz's negative decision was a serious setback which severely limited its operations into France for the next eight months. Already, it had been forced to use a Free French submarine to infiltrate its first intelligence agent into France. In February 1943, agent "Tommy" had been inserted into the south coast of France by the submarine *Casablanca*.⁴⁰ When "Tommy" secured the complete German plans for the antiaircraft defenses of France, he had to be exfiltrated by the *Casablanca* as no AAF plane was made available to extract him and his precious cargo. This same naval mission was used to infiltrate a second intelligence team from SI/Algiers.⁴¹

Despite the apparent success of these early missions, this method was not acceptable to OSS/Algiers as a long-term solution to their transportation problem. The submarine missions were only a stopgap measure. The missions took too long, were fraught with great hazard for the submarine, and depended too much on the cooperation of a foreign service. Of course the submarine, or other boats, could not reach inland. On one OSS submarine infiltration mission, the dingy used to transport the agents to shore capsized, stranding two hapless French Navy crew members in enemy territory with the OSS team for two months.⁴²

For their next SI agent infiltration, OSS/Algiers petitioned the AAF for one aircraft for one drop mission. From 12 May to 19 June the OSS tried to get the Twelfth Air Force to parachute "Tommy" into France. Spaatz refused. Finally, the SOE headquarters in Algiers agreed to arrange for the RAF to accomplish the mission. On 19 June 1943 a British Halifax dropped the OSS agent into the Vercors region of southern France.⁴³

The OSS considered this state of affairs intolerable. As long as the AAF refused to provide airlift support, OSS operations officers were forced to rely on the generosity and cooperation of the British secret agencies to arrange for RAF aircraft for OSS use. The British secret agencies in Algiers helped whenever they could but were never able to get enough planes for their own use. Although the British would arrange for an occasional infiltration aircraft for individual SI agents, as long as there were no AAF planes, the SO/Algiers could contribute nothing in the way of supplying resistance forces with weapons. Furthermore, it meant that few SO agents could be sent into France to build their own resistance circuits.⁴⁴

In Washington, General Donovan worked the issue as best he could. On 13 June 1943 Donovan submitted a letter to the Joint Chiefs of Staff detailing the need for his overseas OSS bases to have the services of dedicated special air units. Donovan requested JCS approval for six bomber-type airplanes for OSS/Algiers and one squadron of 12 for OSS/London. The secretary of the JCS responded that virtually every transport and bomber to be built in 1943 was already spoken for by the theater commanders overseas and that none

could be spared for the OSS. The JCS further emphasized that the solution to OSS air support requirements must come from the overseas combat theater commanders themselves. In other words, the JCS refused to direct the AAF to provide air support for the OSS. If the overseas theater commanders wanted the benefit of OSS support, they would have to make the investment in aircraft themselves.⁴⁵ The JCS response actually did little more than confirm the arrangement already outlined in December 1942 in JCS 170/1.

In North Africa, OSS/Algiers was not having any more success with the theater command than Donovan was having with the joint chiefs. In early June 1943 Col William A. Eddy, the OSS commander in Algiers, submitted a formal request to the Mediterranean Air Command (MAC), asking that an AAF unit be set up for the use of his OSS detachment. The reply to Eddy's letter clearly shows the high level of the opposition OSS faced in its efforts to satisfy its air requirement.

On 18 June, Brig Gen Howard A. Craig, the American chief of staff of MAC, notified OSS/Algiers that MAC's commander, Air Chief Marshal Sir Arthur Tedder, considered the OSS request for an American special operations unit "undesirable." Craig's letter listed seven reasons for not creating an AAF special operations unit. Among these, he explained that the existing RAF special duties squadron was intended "for the use of OSS, SIS, SOE" and that "any of these organizations have just as much call on these aircraft as either of the other." General Craig went on to say that having two separate squadrons would be "less economical," that this would hurt security, that "it is unlikely that such a squadron would be operational in less than six to nine months," and that US planes would create "technical difficulties" for air traffic control because they used different radio frequencies than the British. He stated that, being a new unit, the proposed AAF squadron would be considerably less reliable than the RAF unit. This being the case, he then finished with the ominous warning, "You are, of course, fully aware of the effect on security if crashes on enemy territory occur and pilots and special personnel are taken prisoner."⁴⁶ Every one of the seven "reasons" for refusing to create an American special operations unit was eventually proved to be completely without merit.

Trying another tack, Donovan approached Brig Gen Edward P. Curtis, Spaatz's chief of staff at NAAF and an old friend of the Air Force commander. Spaatz and Curtis had served together in France in the First World War. In the post-war years Curtis left the service but was recalled to active duty at Spaatz's request when America entered World War II. Spaatz wanted Curtis to be his chief of staff at the Eighth Air Force. Thereafter, wherever Spaatz moved to another command, he brought along his trusted friend to be his chief of staff.⁴⁷ During the summer months of 1943 Donovan convinced Curtis of the necessity for OSS/Algiers to have its own special operations flight. Thereafter, Curtis became a valuable ally of the OSS, and he agreed to support Donovan's request for airplanes. The alliance with Curtis proved to be the breakthrough OSS/Algiers so desperately needed.⁴⁸

The Special Flight Section

First Unit, First Mission

In August 1943, General Spaatz finally agreed to provide three aircraft to OSS/Algiers.⁴⁹ Spaatz directed General Doolittle to make the arrangements. General Doolittle approved a plan whereby an ad hoc unit would be set up to fly the special operations missions for the OSS. The special operations unit was designated the Special Flight Section and was attached to the Twelfth Air Force's Fifth Bombardment Wing. The Fifth Wing was the operational headquarters for all the Twelfth Air Force's strategic bombers.⁵⁰

Aircrews and airplanes for the Special Flight Section were provided by three of the Fifth Wing's heavy bomber groups. The 2d, 99th, and 301st Bomb Groups each selected one aircrew and one B-17 for "detached service" with the Special Flight Section.⁵¹ On 26 September 1943 the three crews and three bombers were officially assigned to the Special Flight Section, and the unit was officially "assigned" to OSS/Algiers.⁵²

The Special Flight Section set up operations at Massicault Airfield in Tunisia, the home base of the 2d Bombardment Group. While at Massicault, the Special Flight Section B-17s were maintained by the aircraft service unit belonging to the 2d Group, since the new outfit had no similar capability of its own.⁵³

Before the unit could begin flying for OSS/Algiers, the aircrews needed to be indoctrinated and trained for their new and unfamiliar mission. Also, their B-17s needed several major mission-unique modifications. The B-17s were flown to the major aircraft servicing depot at El Aouina, near Tunis, for the modifications. This work was performed by the 77th Service Squadron.

While the planes were being modified, the crews were briefed on their new role by OSS officers from Algiers. The OSS assigned Maj Lucius Rucker, its senior parachute training instructor, to devise and supervise air operations for the Algiers base. Rucker was highly experienced in parachute operations and was familiar with the techniques and equipment being used by the RAF special duties units based at Blida airdrome, near Algiers. It was Rucker who designed the modifications for the Special Flight Section's B-17s, patterned after those on the RAF's special duties Halifaxes.

In October the modifications on the first B-17 were completed and the first crew began a flying training program designed to teach the crew the new kinds of skills needed for special operations flying. The missions for the OSS would be quite different from those the crews had flown previously. Like all AAF heavy bomber crews, they had been trained to fly at high altitude in close formation with many other bombers. Navigation was primarily the responsibility of the lead bombers in the formation. In their new role, aircraft would fly alone, at night, and as low as 400 feet above the ground.⁵⁴

RAF crew members, experienced in clandestine flights over France, provided advice to the AAF crews. The B-17 training program began with daytime, low-altitude, cross-country flights across Tunisia and Algeria. As

the crews became proficient in low-altitude navigation, they began training on night low-level flights. Between cross-country flights, Major Rucker organized a series of practice parachute dropping exercises, to teach the crews how to drop various types of OSS equipment from low altitude. These training exercises were also used to test and evaluate a variety of dropping procedures, techniques, and equipment. By about mid-October, the first B-17 crew completed its preliminary training.

OSS/Algiers, eager to test their new air capability in actual operations over the continent, scheduled the aircrew for a mission over France. On the evening of 20 October 1943, a single B-17F of the Special Flight Section took off from Blida airdrome near Algiers and set course to the north and France. A few hours later the B-17 crew located their target in the moonlight, a small clearing in the French Alps near Lake Geneva. The B-17 dropped 10 containers of weapons, ammunition, and other items to a group of Maquisards⁵⁵ under the supervision of a British SOE agent. The airplane then headed back toward the south coast of France. Before reaching the relative safety of the Mediterranean Sea, the B-17 was badly damaged by German anti-aircraft fire, which forced the pilot to shut down two of his four engines. The crew limped home to the Algerian coast where they landed on an emergency air strip: mission complete and successful.⁵⁶

The 68th Reconnaissance Group

Expansion and Disorganization

In late October 1943 generals Spaatz and Doolittle allocated three additional aircraft for OSS operations. Though the OSS requirement specified the need for heavy bombers, Spaatz was unwilling to relinquish any more at this time. Instead, the Twelfth Air Force provided the OSS with three B-25 medium bombers, which some OSS officers thought might be useful as pickup aircraft.

In anticipation of this expansion, the Special Flight Section was discontinued and the OSS planes and aircrews were formed into a new organization that took the designations and tables of organization and equipment (TO&E) of the 122d Liaison Squadron and the 68th Reconnaissance Group. The group would provide a headquarters for the squadron. Spaatz selected these two units as the basis for his Special Operations Flight because both were currently involved in secondary crew training duties that were apparently no longer necessary.⁵⁷ Spaatz assigned the units to the newly formed Fifteenth Air Force.⁵⁸

After the B-25s arrived at the unit, it was determined that they were too fast for personnel drops⁵⁹ and had neither the range to reach France from North Africa⁶⁰ nor the payload to make such attempts worthwhile. They were also useless for pickup operations. Though impractical for operations to

France, the B-25s were useful for other OSS operations in the Mediterranean theater. In late December 1943, the 122d Liaison Squadron and 68th Reconnaissance Group redeployed to Manduria, Italy, taking the B-25s with them.⁶¹

The B-17s remained in North Africa for the French operations though they were transferred to Blida airdrome, Algeria. Blida was situated less than 20 miles from the OSS headquarters in Algiers and was slightly closer to the principal drop areas in France. It was also the base for the RAF's Halifax-equipped Special Duties Flight, which supported the large SOE base in Algiers.

With the three B-17s of the 122d Liaison Squadron, OSS/Algiers finally had a modest air capability to begin infiltrating its SI agents into France and to begin dropping SO supplies to Maquis groups deep in enemy territory. It was already obvious, however, that a much larger unit of heavy bombers would be required if OSS/Algiers was to be of any real benefit to the Allies during the upcoming invasions. Meanwhile in the United Kingdom, OSS/London was arranging for an air capability of its own.

Eaker Creates a Special Operations Capability in the European Theater of Operations

General Donovan had established the headquarters for all OSS operations in the European conflict in London in November 1941.⁶² For the next 14 months, the staff of OSS/London studied the operations of SOE and prepared their own plans to join the British organization in arming and organizing the French resistance. The OSS officers recognized that the SOE effort, though efficient and effective in organizing small fighting cells of French partisans, was severely limited in the amount of military materials and agents it could drop into France. The RAF would not or could not provide enough aircraft to provide for a large-scale guerrilla warfare campaign in France.⁶³

By January 1943 OSS/London had completed its plans for SO operations in France. The effort to secure the cooperation of the AAF to provide aircraft for the SO operations became an immediate priority. In January the chief of the Special Operations Branch of OSS/London, Col Ellery C. Huntington, Jr., initiated informal discussions with Maj Gen Robert C. Candee, commander of the Eighth Air Force's VIII Air Support Command. Off the record, Candee was "generally sympathetic to the SO plans for air operations."⁶⁴ Nonetheless, the Eighth Air Force would not commit to provide the requested airplanes. The staff of OSS/London continued to refine its requirements, and on 6 February 1943 they dispatched a cable to OSS/Washington stating the need for "at least twelve specially modified Liberators." The cable further stated that the staff of OSS/London was pessimistic about securing the support of the Eighth Air Force. The London staff recommended that General Donovan take up the aircraft issue with the "highest quarters in Washington."⁶⁵

During February OSS/London arranged additional conferences bringing together staff officials from OSS/London, SOE, the Eighth Air Force, and the American theater headquarters, European Theater of Operations United States Army (ETOUSA). On 20 March 1943 the staff of OSS/London, in conjunction with their counterparts in SOE, arranged for Lt Gen Frank M. Andrews, commander of ETOUSA; Maj Gen Ira C. Eaker, commander of the Eighth Air Force; and Brig Gen Ray Barker, deputy chief of staff of COSSAC, to receive an extensive tour of the highly secret OSS and SOE facilities around London. The tour culminated with a visit to Tempsford airdrome, the RAF's main base for covert air operations into northern Europe.⁶⁶

These visits resulted in a great increase in support for OSS. General Eaker sent a note to the commander of OSS/London in which he expressed his "desire to collaborate with SO air operations." But more importantly, General Andrews, also an Air Corps officer, asked OSS/London to prepare an official request to ETOUSA, stating OSS air requirements. Apparently Andrews intended to use this information to begin the process of setting up the OSS air unit. On 5 May 1943 the OSS letter reached General Andrews's headquarters.⁶⁷ Unfortunately, General Andrews had been killed in an aircraft accident in Iceland two days earlier. OSS lost one of its most influential supporters in that crash. Progress in their effort to secure aircraft effectively stalled when General Andrews was lost.

For the next several months General Donovan tried unsuccessfully to convince the JCS to designate aircraft for OSS/London (and OSS/Algiers). As indicated previously, their reply was that the theater commanders, not JCS, were responsible for satisfying (or ignoring) OSS requirements.⁶⁸ Through the summer of 1943 it appeared to OSS/London that time was rapidly running out. With Overlord scheduled for May 1944 there were not many months left to convince the new commanding general of ETOUSA, Lt Gen Jacob L. Devers, to provide the desperately needed planes.

Though General Eaker had earlier expressed his desire to provide air support to OSS, his bomber force buildup was still lagging far behind schedule, General Arnold was pressuring him to dispatch more and larger raids on Germany, and combat losses were climbing dramatically. As an example of the strains being imposed on the AAF bomber force at this time, the raid in Ploesti on 1 August cost 54 B-24s lost, while Eaker's raid on Schweinfurt/Regensburg on 17 August cost him 60 B-17s lost. One hundred and fourteen heavy bombers were lost on just these two missions. One can recognize the motive for the reluctance of the AAF air commanders to divert bombers to OSS duties. On the other hand, the entire request from OSS for all its needs in the Mediterranean and for the ETO at this time was a grand total of only 18 airplanes.

Just when the situation was looking grim, good fortune smiled on the OSS. In the fall of 1943, OSS/London became the unexpected benefactor of an agreement between the War Department and Navy Department that designated the Navy as the sole service responsible for airborne antisubmarine warfare. The agreement was signed on 9 July 1943. At this time, General Eaker's

Eighth Air Force included the 479th Antisubmarine Group with four squadrons of B-24 Liberators that were used for hunting U-boats in the Bay of Biscay. According to the July agreement, the Navy's Liberators would arrive to replace the 479th Group's B-24s in October 1943. With the Navy taking over these duties, Eaker's antisubmarine B-24s appeared to be out of work. Because of their extensive antisubmarine warfare modifications, these particular B-24s were useless for conventional bombing, and furthermore, their aircrews were not trained for high-altitude formation flying. Eaker saw this as an opportunity to satisfy the OSS requirement at no cost to his strategic bomber force.⁶⁹

Eaker's staff quickly worked out a rough plan to use the unemployed B-24s and their crews for OSS operations. This concept was passed to General Devers at ETOUSA. With the aircraft problem finally solved, OSS/London's overall plan for clandestine warfare operations on the continent was suddenly feasible. On 26 August 1943 General Devers dispatched a cable to the War Department signaling his official approval of OSS/London's long-standing plan.⁷⁰ The JCS subsequently endorsed the OSS plan and passed it on to the Combined Chiefs of Staff, who gave their approval on 17 September.⁷¹ The next day, General Eaker directed his VIII Bomber Command to complete detailed plans to implement the air side of the OSS plan.⁷² Devers next asked the Eighth Air Force and OSS/London to refine their specific proposals into a definitive joint OSS-AAF operations plan. This final version called for Eaker to immediately organize one squadron of B-24s for exclusive use by OSS, to be followed as soon as possible by a second squadron.

The Eighth Air Force special operations program was code-named the Carpetbagger Project. In November the new special operations squadrons were activated as the 36th and 406th Bombardment Squadrons (Special). The VIII Bomber Command stationed the two squadrons at Alconbury airfield, north of London, where they were attached to the resident 482d Bombardment Group (Pathfinder) as the Special Project force. Lt Col Clifford J. Heflin, the former commander of the 22d Antisubmarine Squadron, was given command of the Special Project force.

Over the next three months selected aircrews from the disbanded 479th Antisubmarine Group were retrained for their new mission with the assistance of experienced RAF special duties crews from Tempsford. In the meantime, 32 B-24s were sent to Eighth Air Force maintenance depots to receive extensive modifications. By the end of the year, the first crews and airplanes were ready for operations.

The first Carpetbagger missions were flown on the night of 4 January 1944. In February the Carpetbaggers moved to Watton airdrome where they came under the administration of the 328th Service Group. In March the Carpetbaggers moved once more; this time to a permanent home at Harrington airdrome. At the same time the Eighth Air Force activated the 801st Bombardment Group (Provisional) to administer the two squadrons. Colonel Heflin was designated as group commander.⁷³

The tempo of operations was slow at first. In January 1944 the two Carpetbagger squadrons flew only 17 missions. The pace rapidly picked up thereafter as additional B-24s were delivered from the modification depots. The Carpetbaggers flew 56 missions in February and 69 in March. By April the 801st Group reached its planned strength of 32 B-24s. That month the unit flew 99 missions. In May the total was 200 missions.⁷⁴

The Carpetbaggers gave OSS/London a first-rate special operations capability. The unit was highly organized and well supported by the Eighth Air Force, and its crews quickly learned the art and science of special operations flying. During the five months leading up to D day for Overlord, the Carpetbaggers parachuted hundreds of tons of weapons to resistance groups and infiltrated SO/London F-Section agents into France. Unfortunately, the situation for OSS/Algiers was far less sanguine.

Eaker Expands Air Force Special Operations Forces in the Mediterranean Theater of Operations

In early January 1944 Ira Eaker, now promoted to lieutenant general, was transferred to the Mediterranean theater of operations (MTO) to become the commander of the Mediterranean Allied Air Forces (MAAF). Soon after arriving at his new post, Eaker conducted a thorough review of the special operations capability within MAAF, with particular attention to the AAF contribution. Having recently overseen the organization of the Carpetbagger squadrons in England, Eaker was thoroughly familiar with the special operations mission. Eaker quickly discovered major problems with the ad hoc unit set up by his predecessors.

Compared to the Eighth Air Force's Carpetbagger Project, the Fifteenth Air Force effort was not only paltry, it was in shambles. By the end of January 1944, the total AAF commitment for clandestine operations in the MTO still amounted to only the three original B-17s and six B-25s of the 68th Reconnaissance Group, 122d Liaison Squadron. While the B-25s supported secondary operations in Italy and the Balkans, the three B-17s made up the AAF/MTO's total contribution to the higher priority French campaign. To make matters worse, Eaker discovered that the B-17s had flown only 26 missions since becoming operational in October 1943, with only 11 missions resulting in successful drops over this four-month period.⁷⁵

To Eaker the whole setup seemed doomed to failure. Obviously, there were not enough planes. Aircraft maintenance was poor. The squadron's administrative headquarters and group commander were located in Italy, over 600 miles from the B-17 base in Algeria. Complaints from the staff of OSS/Algiers over the lack of support from the B-17 unit were steadily increasing. True, extremely poor weather conditions in November and December had severely restricted flying to France, but nonetheless Eaker was unhappy with the B-17 unit's performance. Eaker determined that the core of the problem

lay in the ad hoc nature of its organizational setup. With Overlord only five months away, Eaker knew that decisive action was required and quickly.

On 31 January 1944 Eaker dispatched a cable to the War Department for General Arnold at Headquarters USAAF in Washington requesting permission to reorganize the 122d Liaison Squadron according to a standard AAF heavy bomber squadron table of organization and equipment). France, Eaker knew, was the top priority. In order to build up his French capability, he was willing to give up his short-range B-25s in favor of long-range heavy bombers. If Headquarters AAF would authorize him to reconfigure the 122d squadron with a heavy bomber TO&E, it would add 12 more heavy bombers to the unit, giving it a total squadron strength of 15 aircraft. Importantly, Eaker made it clear that he was not requesting that the War Department send any additional planes and aircrews to the MTO for this project. The expansion would be accomplished using assets already in the theater.⁷⁶

Eaker pointed out that the current unit had never been officially authorized and that its organization was hopelessly inefficient and, therefore, ineffective. The unit had no aircraft maintenance capability, no legitimate provision for replacement planes, crews, or equipment, and was, for all practical purposes, operating without a commander. Official authorization from the War Department would allow Eaker to organize a legitimate unit, with all the operational, intelligence, and administrative support that comes with it. Eaker made it clear in his message that he would not allow the current slipshod ad hoc arrangement to continue. Either the USAAF was going to do it right or he would get the AAF out of the special operations business and leave the mission to the RAF.⁷⁷

Eaker's cable touched off a long and often bitter dispute with Arnold over the allocation of heavy bombers for special operations. A detailed account of this particular controversy follows, as an example of the difficulties experienced in the buildup of special operations units for clandestine activities in support of Overlord.

After receiving Eaker's message on 1 February, General Arnold immediately sent Eaker a long list of questions, asking for details regarding the overall status of AAF and RAF special operations in the MTO. It was apparent that Arnold was not going to simply affirm Eaker's plan.⁷⁸

While awaiting answers to his questionnaire, Arnold put his Headquarters AAF Air Staff to work studying Eaker's request and proposal. On 4 February Col Jack Roberts, chief of the Air Staff's Bombardment Branch, recommended approval.⁷⁹ Col Kenneth Bergquist, chief of the Allocations Branch, also agreed that Eaker's plan presented no problems.⁸⁰ Unfortunately, Col Byron Brugge, chief of the Air Staff's Troop Basis Division, which was responsible for keeping AAF personnel strength within War Department limits, did not concur.⁸¹ Brugge, concerned that Eaker was actually asking for authorization for an additional squadron, stated that there were no extra units available for Eaker's purposes. Unfortunately, Brugge had misunderstood Eaker's 31 January message. Eaker had never asked for an "additional" bomb squadron;

he simply wanted authorization to reorganize the existing 122d Liaison Squadron. As a result of Brugge's negative reply, Col J. L. Loutzenheizer, chief of the Air Staff Operations Plans Division, recommended to Arnold that Eaker not be allowed to activate an "additional" squadron.⁸²

On 9 February RAF Air Marshal John Slessor, Eaker's deputy at MAAF, entered the debate in support of Eaker, when he dispatched a cable to Air Chief Marshal Charles Portal, British chief of the Air Staff, endorsing the MAAF commander's effort to expand the AAF special operations force in the MTO. Slessor was trying to enlist Portal's support in Eaker's dispute with Arnold. Slessor knew that any bombers assigned to OSS duties would be diverted from the Combined Bomber Offensive (Operation Pointblank), yet he was convinced of the need to expand the minuscule OSS effort to southern France. While reminding Portal that both he and Eaker were fully cognizant and supportive of the requirement for the maximum number of bombers for Pointblank, Slessor asked his chief in London to put pressure on Arnold to approve Eaker's request. Slessor wrote, "I need hardly tell you that you have no stronger supporters in avoiding loss to bomber offensive than Eaker and myself." He then asked Portal to try to get Arnold moving on the issue, "Finally can you put some ginger into ARNOLD about this heavy bomber squadron referred to in Eaker's signal to you of 8 February."⁸³

The next day Portal replied to Slessor's entreaty by informing him that on 25 January 1944 the British chiefs of staff had dispatched a cable to their counterparts in the JCS asking the Americans to increase their special operations commitment in the MTO. According to Portal, the British chiefs wrote:

Suggesting formation of U.S. Squadron in Mediterranean for OSS purposes. No reply yet received but hastener has been sent.⁸⁴

On 13 February Portal informed Eaker that the British Air Ministry had received word that the War Department had deferred the British chiefs of staff appeal for a new AAF squadron in the MTO for special operations. According to Portal, the American reply stated that

present commitments throughout the world make it impossible to provide the resources. General Arnold has however stated that U.S. commanders have been directed to employ for supplying resistance groups any aircraft that can be spared using pilots who have completed 25 missions over Germany.⁸⁵

This was disappointing news for Eaker. In effect, it gave him permission to continue the status quo. On 15 February Eaker officially received this same news directly from Arnold. In a somewhat confusing message, Arnold informed Eaker he would not officially authorize activation of an "additional" bomb squadron for special operations, but that Eaker could inactivate the 122d Liaison Squadron and, if necessary, other units in the theater to provide planes and crews for OSS missions. Arnold went on to say that he would not authorize any additional planes or crews from the States to make up for those diverted to special operations. In addition, Eaker was told he should use aircraft "no longer fully operational for combat missions." Arnold then made a point of letting Eaker know that Spaatz had been asked his opinion about

allotting additional planes for special operations. By this time, Spaatz was commander of the United States Strategic Air Forces (USSTAF) and as such had operational command of the Eighth and Fifteenth Air Forces. Any heavy bombers Eaker would use to expand the OSS unit would necessarily come from Spaatz's Fifteenth Air Force. Arnold told Eaker that

Spaatz replied that the 36 and 406 Squadrons in UNITED KINGDOM would be augmented to 16 aircraft and crews each but recommended no diversion of any additional heavy bomber type aircraft either in UNITED KINGDOM or the MEDITERRANEAN for this purpose.⁸⁶

Finally, Arnold's message ended by reminding Eaker that if he decided to inactivate the 122d Liaison Squadron in order to use its TO&E as the basis for a special operations squadron, he would be in violation of an earlier AAF agreement regarding the use of liaison squadrons to support US Army ground forces.⁸⁷

It is clear from Arnold's message that neither he nor his staff understood Eaker's current situation nor the basic intent of his original request. To begin with, Arnold refers to a request for "additional" planes and crews, though Eaker had always insisted that he could man and equip the new unit with resources already assigned to the MTO. All Eaker had asked Arnold for was permission to officially reconfigure the 122d Liaison Squadron into a bomber squadron, using planes and crews currently assigned to the Fifteenth Air Force. Furthermore, the 122d Liaison Squadron had, in fact, never been assigned to genuine liaison duties since it arrived in North Africa during Torch in November 1942. The Army ground forces would, therefore, presumably not miss the unit if it became an official special operations squadron since, in fact, it had been a de facto OSS unit for four months already. The bottom line was that Arnold wanted Eaker to continue with the existing ad hoc arrangement. General Eaker was, however, unwilling to concede to this solution. If Arnold thought the issue was dead, he was mistaken.

On 19 February the stakes suddenly got higher when General Devers, the deputy supreme allied commander, Mediterranean, received a cable from generals Eisenhower and Donovan asserting the great importance they placed on AAF support for the clandestine warfare in France and the Balkans. As supreme commander, Allied Expeditionary Force, Eisenhower was intensely interested in ensuring that the Allied Special Force teams, intelligence agents, and resistance forces got all the air support they needed in time to benefit the Overlord assault, now less than four months away. Eisenhower's endorsement gave Eaker's cause a great boost.

Later that day Devers and Eaker dispatched a joint message to Gen George C. Marshall and Arnold urging reconsideration for Eaker's original request. Part of their cable read:

It appears to us now that the American chiefs of staff propose to affirm that no squadron is to be authorized for this purpose on the American side but that we are to use any volunteer crews who have completed operations and do the best we can by makeshift and improvisation. Please consider the following: We cannot hope to make an efficient contribution on any such basis of improvisation. We should not

be expected to accomplish by subterfuge what is not clearly authorized and provided for in organization and establishment. The provisional unit has been tried out and is ineffective. It requires not only crews with special training in night navigation technique, but it requires maintenance personnel and highly trained operational and intelligence staffs. This indicates the necessity for a definite squadron organization. . . . From the American point of view it will be bad, it appears to us, to have the Balkan and French patriots realize that only the British are helping their effort. We can easily create a definite organization on an approved squadron basis under the plan submitted in our [previous cable] without detriment to our strategic bombing or tactical requirements.⁸⁸

An increasing barrage of messages supporting Eaker continued to arrive on Arnold's desk. On 25 February General Donovan of the OSS entered directly into the fray with a three-page personal letter to the AAF commanding general. Donovan reiterated the need to assist Eisenhower in Overlord by supporting partisans in France and in the Balkans. The OSS director then compared the AAF commitment to the RAF's. Donovan pointed out that Churchill himself had directed the RAF to assign 32 Stirling heavy bombers to SOE in the United Kingdom and another 36 Halifaxes to special operations in the Mediterranean. Furthermore, Churchill was ordering RAF Bomber Command to provide hundreds of additional sorties to SOE, using planes from regular bomber units. The OSS, Donovan continued, would need at least 36 B-17s and B-25s in the MTO and "at least two or three more squadrons" in the ETO. Donovan finished his letter by casually asking for "a few of the AAF's new helicopters" and some "advice" on getting pickup planes that would be better than the RAF's Lysanders.⁸⁹

Donovan kept up the pressure with another letter to Arnold on 3 March, in which he enclosed a copy of a message he had received from Air Marshal Slessor. In the message, Slessor had told Donovan that

we can get the planes here together in this theater [MTO] without touching Pointblank, but it is patently not possible for General Eaker to accomplish this without an authorized unit, plus its appropriate Table of Organization. . . . Our current allotment of a few B-25s are practically worthless and we really require a squadron of heavy bombers sorely.⁹⁰

After reading the OSS director's latest letter and the copy of Slessor's cable, an apparently exasperated Arnold scribbled a note across the top of Donovan's letter. Addressed to his deputy, Maj Gen Haywood S. Hansell, the notation simply exclaimed: "Now What?"⁹¹

Eaker also continued applying pressure to Arnold. On 6 March Eaker sent a letter to Maj Gen Benjamin M. ("Barney") Giles, the chief of the Air Staff, asking him to expedite approval for the proposed OSS squadron.⁹² By this time the issue over the reorganization of a single squadron was getting out of hand. The subject had now seemingly involved nearly everyone of senior rank in the War Department, the Air Staff, the Mediterranean Theater of Operations, the European Theater of Operations, SHAEF, the OSS, AFHQ, and even the State Department. Churchill, Marshall, Arnold, Eisenhower, Wilson, Donovan, Spaatz, Portal, Slessor, Devers, State Department diplomats, and of

course Eaker had all, to some extent, become embroiled in the controversy. To this point, General Marshall had tried to stay neutral, letting Arnold handle what was primarily an AAF issue. Arnold and Spaatz were firmly against allotting any further bombers for special operations. Most of the others supported Eaker and the OSS. Most importantly, the Supreme Allied Commanders of both the European and Mediterranean theaters (Eisenhower and Wilson) wanted the AAF to provide more support for OSS operations.

At last, General Marshall decided enough was enough. Marshall directed Arnold to prepare and present a detailed report stating all the issues regarding "Allied Assistance by Air to Resistance Groups in Europe." The report would be submitted to the Combined Chiefs of Staff for a final decision. After hearing the AAF Air Staff report, the combined chiefs decided in favor of Eaker's proposal.

On 9 March 1944 the War Department sent word to Devers that he and Eaker were officially authorized to designate one squadron to be organized according to AAF regulation TO&E for OSS operations. As a basis for the new unit they were to inactivate the 122d Liaison Squadron, and other units if necessary, to get the planes and crews needed for the new squadron. All men and equipment were to be taken from units already in the theater. No resources would be sent from the States to make up the new unit or to replace those taken from other units to make up the new squadron. After three months of intense debate, Eaker got exactly what he wanted.⁹³

Having received the green light from Washington, Eaker wasted no time setting up the new unit. The three-plane B-17 element at Blida was used to form the nucleus of the new squadron. Its experienced crews would provide instruction to the incoming crews. Eaker directed Lt Gen Nathan F. Twining, commander of the Fifteenth Air Force, to detach 12 B-24 Liberators from his bomber force for assignment to the special operations unit. This would give the unit a total inventory of 15 heavy bombers: three B-17s and 12 B-24s.⁹⁴ Crew members were detached from a variety of Fifteenth Air Force bomb groups to man the new planes.

During March and April 1944, the new crews were put into a training program while their B-24s were sent to a maintenance depot in Tunis for modification. Col Monro MacCloskey was assigned as the new squadron commander. Under MacCloskey's dynamic leadership, the unit was transformed into a highly effective combat squadron. In February the unit had flown only five missions. The total for March and April was 35. In May, even as new crews were still in training and without the benefit of having received all its planes, the mission total was 88. On 10 April 1944 the new unit was officially activated as the 122d Bombardment Squadron (Heavy),⁹⁵ and on 15 June 1944 it was redesignated as the 885th Bombardment Squadron (Heavy) (Special).⁹⁶ At long last, after a 16-month struggle, OSS/Algiers enjoyed the full support of the AAF.

Eisenhower Expands Air Force Special Operations Forces in the European Theater of Operations

In the meantime, OSS/London also sought to expand the Eighth Air Force's special operations capability. On 22 February 1944, Col Joseph P. Haskell, commander of the SO branch of OSS/London, notified General Donovan that the current AAF contribution in supplying weapons and assistance to the French resistance forces was much smaller than that of the RAF. Haskell reported that the small scale of the American effort limited the potential of the irregular forces preparing for Overlord and was potentially a source of adverse political repercussions from the post-liberation French government.⁹⁷ In April the State Department notified the JCS that they too thought the limited American effort to help the French could have serious negative implications. The French might construe the lack of increased support for the resistance as a deliberate political act. The joint chiefs passed this warning to Eisenhower on 17 April.⁹⁸ The supreme allied commander, though unsure of the combat value of the irregular forces, was willing to invest additional aircraft in the hope that these elements might help ease the burden for his assault divisions after D day.

On 2 May 1944 General Eisenhower directed General Spaatz to provide an additional 25 aircraft to Carpetbagger. On 10 May the Eighth Air Force selected the 788th and 850th Bombardment Squadrons for assignment to Carpetbagger. Each squadron brought 16 B-24Hs to the 801st Bomb Group, giving the Carpetbaggers an eventual total strength of 64 Liberators.⁹⁹

Final Preparations for D Day

As D day approached, the Allied clandestine warfare agencies reorganized to ensure complete integration with the overall effort. In January 1944 SO/London merged with SOE's operational headquarters in London to become Special Force Headquarters (SFHQ), directly under SHAEF command. Likewise, in North Africa, SO/Algiers merged with the SOE base in Algiers to become the Special Project Operations Center (SPOC), a subordinate element of SFHQ. This gave General Eisenhower direct operational control of all Allied special operations in France during Overlord.¹⁰⁰

As initially approved by COSSAC, and later by SHAEF, SFHQ strategy was to limit pre-D day special operations primarily to the supply of weapons and ammunition to resistance groups. SOE's F-Section circuits were directed to carry out small-scale sabotage actions, but large-scale sabotage and guerrilla warfare activities would not be initiated until after Overlord began. This would prevent the irregular forces from "showing their cards" too early. Commencing on D day, special force elements would orchestrate widespread sabotage, ambush, and guerrilla warfare operations against German divisions moving toward Normandy. Attacks would also be made on key railroads,

bridges, communications lines, headquarters, barracks, storage areas, and other targets.

OSS intelligence operations, being at least as important before D day as after, were already under way from OSS/Algiers. Britain's SIS had been sending its agents into France since the summer of 1940. SI/Algiers began infiltrating its agents into France in early 1943. By 1944 SI/Algiers had established a large and highly effective network of agents throughout central and southern France where they were kept busy collecting intelligence for the planners of Anvil.¹⁰¹

Intelligence operations into France by OSS/London were not as extensive as those from Algiers. SI/London did prepare to take part in a limited joint SIS/SI operation code-named Sussex. This operation called for the infiltration of British Brisse agents and American Ossex agents into France after D day. After the landings, the Sussex agents were to be parachuted into key areas not already covered by previously infiltrated intelligence teams.¹⁰² In addition, SI/London prepared another group of 50 intelligence agents for post-D day infiltration as the Proust Project.¹⁰³

All was now ready for Overlord. Intelligence agents were in place, already feeding important information to Allied commanders and planners. SOE and OSS F-Section agents, already veterans in sabotage operations, were with their partisan fighting groups in France, armed and ready for the call to action. SFHQ's Jedburgh teams and operational groups in England and Algeria were trained and standing by for infiltration. Thousands of tons of weapons, explosives, and ammunition were packed, stockpiled, and ready to be dropped to special force teams and resistance forces. A total of five USAAF special operations squadrons were rapidly gaining combat experience while awaiting the call for "maximum effort" on D day.

The Air Strategy for Army Air Forces Special Operations

The strategy guiding the employment of USAAF special operations forces was a natural and inextricable subelement of the overall strategy for clandestine activities in France. The basic strategy was to establish intelligence networks and organize and build the strength of resistance forces prior to D day. This would require major air operations over France long before the landings commenced. It was considered vital to place intelligence agents inside France and to arm the irregulars as far in advance of the landings as possible. In concert with the British, the AAF was to have begun arming resistance groups and infiltrating intelligence agents and resistance organizers throughout 1943. The AAF's failure to provide OSS with an effective air capability until the Carpetbagger project became operational put that objective far behind schedule. Aside from a handful of missions by the B-17s of the 122d Liaison Squadron in the last three months of 1943, the USAAF

special operations air campaign in support of Overlord/Anvil effectively began in January 1944. At that point the strategy called for a maximum effort to deliver supplies to SOE/OSS sponsored resistance groups, to infiltrate for OSS/London and Algiers a small number of SO F-Section agents and, for OSS/Algiers, to infiltrate a growing number of its SI intelligence agents. This meant that the overwhelming percentage of missions prior to D day were supply drops, with a much smaller requirement for personnel drops. After D day, the air effort would include a major increase in the percentage of personnel drops, as hundreds of Jedburghs and operational group operatives were inserted into the French interior. Supply drops would continue to replenish stocks used in combat with the Germans and to equip the influx of Frenchmen joining the resistance after the landings had begun.

US Army Air Forces Doctrine for Special Operations

The commanders and planners of the USAAF special operations units that flew in France in 1944 were not guided by any sort of official (written) operational doctrine. Nevertheless, one can discern an implicit doctrine within the narratives of their unit histories. It becomes apparent that the doctrine that guided the conduct of USAAF special operations in France was a natural extension of the overall doctrine for clandestine warfare as conceived by General Donovan for OSS.¹⁰⁴ This correlation reflects the fundamental "jointness" of the OSS/AAF partnership.

Basically, OSS doctrine had two facets: a doctrine for clandestine warfare and a doctrine for covert intelligence collection. OSS doctrine for clandestine warfare was based on the idea that the rear areas behind enemy lines were full of lucrative targets that were vulnerable to attack by specially trained guerrilla warfare teams and irregular resistance forces. These rear areas represented a sort of "exposed flank" in the enemy's line. Donovan believed that the rear areas were a potential battleground waiting to be exploited. While conventional forces engaged the enemy on the front lines, special forces could engage him in the weak interior. One can also look at this concept from a negative aspect. If the Allies did not bring the war into the rear areas, the enemy would be allowed to deploy more forces to the front. He would enjoy greater freedom of movement, more economy of force, and more confidence in his overall security, both physical and psychological. The Allied clandestine warfare forces aimed to deny this sanctuary to the enemy.

In important ways, airmobile special operations forces had the same virtues and advantages that air power had over conventional ground forces. Both were intended to cross over the battle lines, to reach back into the vulnerable rear areas, and to attack targets unreachable by the regular ground forces. The critical difference was that special force teams or partisans could maintain a persistent presence in the enemy hinterland that aircraft could never

hope to have. Many air attacks, though violent and destructive, had inherently temporary effects on the Germans. Donovan's OSS, along with SOE and the French irregulars, provided a less perishable hazard to German forces in the interior. Actually, the combination of special operations and air attacks provided SHAEF with a complementary, two-fisted threat to German rear area operations.

With regard to intelligence doctrine, Donovan's OSS sought to continue the proven, fundamental belief that in war there is no substitute for having human intelligence sources operating among the enemy, silently observing and seeking out essential military information. Even with the development of aerial reconnaissance capabilities and ULTRA,* the intelligence agent living among the enemy was considered a highly valued asset. Allied commanders consistently placed tremendous value in OSS-SI and SIS agent coverage in France, not only to discover what ULTRA could not but also to confirm what ULTRA hinted at.¹⁰⁵

The large-scale special operations effort and intelligence operation desired by SHAEF was not feasible unless the operatives could be inserted into the rear areas and sustained by reliable, covert means. This, of course, was where air force special operations doctrine merged with clandestine warfare doctrine. Specific USAAF special operations doctrine was founded on the idea that specially trained air crews, flying specially modified aircraft, with meticulous premission planning and suitably tailored tactics, could effectively penetrate deep into enemy territory to infiltrate, sustain, and exfiltrate intelligence agents and special operations teams.

Air force special operations capabilities made operations behind the lines not only possible but practical. In previous wars it was extremely difficult and hazardous to conduct unconventional warfare behind the lines. Organized guerrilla warfare forces require substantial logistical sustainment if they are to have a real impact on the enemy. The airplane provided the solution to this long-standing problem. The special operations squadrons allowed the Allies to organize and equip the indigenous resistance forces to an extent never before possible. By infiltrating liaison teams, they also made it possible to coordinate partisan operations with the main effort. Furthermore, the ability to use aircraft to extract agents and teams from deep inside enemy territory was another major breakthrough in the evolution of unconventional warfare. Indeed, in World War II, the airplane revolutionized clandestine warfare. Air power not only brought the air war to the enemy in his heretofore secure rear areas, it now brought the ground war into his own backyard as well.

The airspace over enemy territory was highly vulnerable to repeated covert incursions. AAF special operations crews sought to exploit this enemy vulnerability. To sum up AAF special operations doctrine in words perhaps more familiar to students of conventional US Army Air Forces doctrine, a well-

*ULTRA was a project by which British cryptanalysts broke the German's code, enabling the Allies to receive top-grade German signals during the war.

planned, well-executed air force special operations mission will always get through to its objective.

US Army Air Forces Special Operations Tactics

The tactics used by AAF special operations units were originated and developed by the RAF in the early war years. By the time American aircraft became engaged in special operations missions in late 1943, most fundamental combat tactics had been established by trial and error by the special duties squadrons. The Americans did, however, create a few techniques of their own later on.

Air force special operations tactics were based on the overriding requirements to avoid detection and evade enemy defenses, with the ultimate goal of preserving mission secrecy. Although most military air operations were planned and conducted with as much secrecy as possible, the very violent nature of most air combat missions meant that secrecy was unavoidably lost on the objective. There was no way to hide a fighter sweep or a bombing raid. Special operations, on the other hand, were planned and executed with the utmost secrecy from mission conception to landing, and even long afterward. There was a basic and constant imperative to protect the persons involved on the objective, be they agents being parachuted or ground parties receiving a load of weapons. The very nature of guerrilla warfare or intelligence activity required that the operation be as covert as possible.

Secrecy began long before takeoff, during mission planning and preparation. Security on and around USAAF and RAF special operations bases was extremely tight, far more so than at conventional air bases.¹⁰⁶ Even after the air missions were completed, the details of each sortie were kept classified, sometimes for many years afterward.

The need for secrecy dominated the tactics of the airborne mission. It would do great harm if German radars, listening devices, night fighters, or ground observers could track Allied special operations aircraft to their objective, thus giving away the location of agents or special force teams. The evasion of these detectors and defenses was the most important consideration in mission planning and in flying the missions, not only to protect the users but also, of course, to protect the airplanes themselves. For this reason, the most basic tactics in special operations were to fly only at night and always as low as possible.

In special operations flying, precise navigation was the key to successful mission accomplishment. Unfortunately, the need to fly only at night greatly increased the difficulty of navigation. Night navigation in 1943-44 was more art than science. There were few electronic aids to navigation available and fewer still that worked at the low altitudes flown by the special operations crews. Navigation was accomplished primarily by pilotage (map reading by

the bombardier) and by dead reckoning by the navigator. Good moonlight was important for pilotage navigation, and the vast majority of missions prior to D day were flown in the moon period of the month (17 days per 28-day cycle).¹⁰⁷ After D day, when a "maximum effort" was called for, many American crews were sent out during the moonless "dark" periods. Weather, however, was a very serious factor and often caused missions to be aborted before takeoff or resulted in unsuccessful flights. In order for the crew to see key landmarks below, the pilots flew as low as possible, usually no more than 1,000 feet above the ground.¹⁰⁸ Low altitude was also essential to stay under German radar and sound detection device coverage.

German antiaircraft artillery (AAA) was considered the major threat to special operations aircraft. Crews were careful to plan their routes to avoid AAA. Known flak (Fliegerabwehrkanone) sites were plotted by air intelligence officers on large-scale maps in aircrew mission planning rooms, but these charts could not hope to include all the mobile flak batteries or the smaller AAA units. Aircrews were, therefore, on the constant lookout for ambushes by unexpected flak guns. Flak was always considered most dangerous near military and industrial sites and in the coastal flak belts. While the former could be avoided, the latter could not. Aircraft from bases in Algeria or England eventually had to penetrate the German coastal flak belts to get into the interior of France. The standard tactic used in these cases was for the pilot to approach the coast at low level, under German radar, then quickly climb to 8,000 feet to get over the coastal guns, then drop back down to low level once past the coast. The tactic was repeated on egress.

German night fighters presented a serious potential threat to special operations aircraft. By late 1943, when AAF aircraft began their clandestine flights over France, the Luftwaffe night-fighter force had been molded into one of the most effective weapons in the Wehrmacht.¹⁰⁹ The night tactics of RAF Bomber Command had forced the Germans to devote a very large part of their Luftwaffe research and production effort into night defenses to protect the Reich from RAF Air Chief Marshal Arthur H. ("Bomber") Harris's massive nocturnal raids. Radar-equipped Me-110, Ju-88, and Do-17 night fighters were built in the thousands. Modern ground control intercept sites (GCI) were constructed and manned by well-trained, experienced fighter controllers.¹¹⁰ By 1943 the Luftwaffe's night-fighter capability was awesome. During 1943 alone, Luftwaffe night-fighter pilots were credited with 2,882 confirmed night kills of Allied aircraft.¹¹¹

For two reasons, however, German night fighters did not develop into a major threat to special operations over France. First, the main target for the night fighters was RAF Bomber Command. With Bomber Harris raining fire raids upon Germany's cities, the Luftwaffe could not afford to deploy many night fighters away from Bomber Command's main axis of attack—Belgium, Holland, and Denmark. This limited German night-fighter coverage of France. Second, AAF and RAF special operations aircraft were usually too low to be seen on German GCI radars or by the airborne-intercept (AI) radars of the Luftwaffe night fighters. On a few occasions, German night fighters did

spot clandestine intruders in the moonlight, and a few AAF planes were shot down by night fighters; but flak remained the main threat.

Collision with the ground was a constant threat, especially during parachute drops in the mountainous areas which the Maquis of southern, central, and eastern France preferred. Night low-level flying in mountainous terrain demanded the highest degree of piloting skill, precision navigation, good weather conditions, and a touch of luck. Several aircraft losses resulted from crashing into the ground during low-altitude maneuvering by moonlight.

Special operations B-17s and B-24s normally flew their routes at 1,000 feet above the ground at 155–170 miles per hour.¹¹² In the objective area—over the dropping zone—the pilots descended to between 400 and 800 feet, depending on the type of drop, and slowed to approximately 120–130 miles per hour. Most drops for OSS-SO and SOE were flown to drop zones marked with flashlights or small fires placed by a reception team on the ground. The more security-conscious intelligence agents of OSS-SI preferred to be parachuted “blind” into unmarked, unmanned drop zones.¹¹³

Equipment

Aircraft Modifications for Special Operations

USAAF B-17s and B-24s required extensive modifications before they could be used for special operations. Several of these changes were required to adapt the planes for night flying. Exhaust flame dampers were fitted to the engines to hide their telltale glow from German night fighters. Flash hiders were fitted to the muzzles of the defensive guns. Blackout curtains were fitted throughout the aircraft to keep light from leaking out. The most radical modification involved the complete removal of the ball turret and its framework from the fuselage. This left a large circular hole in the fuselage floor through which agents could be dropped by parachute. This came to be known as the Joe hole, so named because of the OSS security practice of referring to its agents as Joes in discussions with the airmen. Dozens of other minor changes were made on the aircraft. Finally, the B-17s and B-24s from the 885th Bomb Squadron had black camouflage paint sprayed under the fuselage and wings. The B-24s of the Carpetbagger Project were painted black overall.

The OSS had a long-standing requirement for a pickup capability that would allow it to deliver personnel and equipment on landing zones in enemy territory and extract personnel for return to friendly territory. The OSS commanders in Algiers and London had generally deferred pressuring the Army Air Forces to meet this requirement until their efforts to secure the higher priority parachute infiltration and resupply capability had been satisfied. In April 1944 the 801st Bomb Group commander, Lieutenant Colonel Heflin, initiated a project to create a pickup capability for OSS/London using C-47s. One C-47 Dakota was acquired, and in early May the Carpetbagger group

developed tactics for employing the aircraft on landing missions in France. On 6 July Colonel Heflin piloted the C-47 on the unit's first landing operation behind German lines. After the success of the first mission, three more C-47s were acquired and regular pickup missions were flown to covert landing zones set up by the Maquis.

Maximum Effort for Overlord

The combat record of operations for the special operations squadrons is primarily a compilation of statistics. The secret nocturnal air war over France did not include dramatic large-scale air battles of the kind witnessed in the daytime air war. There were no epic Ploesti or Schweinfurt raids, no strafing of ammunition-filled train cars, or bombing of bridges. The secret air war was more subtle than the conventional air war. Great moments of drama were limited to infrequent encounters with marauding German night fighters or to unlucky meetings with hidden flak batteries. Antiaircraft fire caused most losses. A successful mission was one in which a B-24 or B-17 quietly slipped across the Channel or over the Mediterranean en route to a secret rendezvous in the French countryside. After quickly dropping its load of people or weapons, the plane would weave its way back to base—the whole operation usually unnoticed by the enemy. Instead of epic air battles, the secret air war consisted of a continuous succession of sorties to France. Because there were never enough USAAF or RAF special operations planes available to meet all the OSS, SOE, or SIS requirements, the planes were in constant use during moonlight periods of each month, and sometimes during dark periods. In the months leading up to D day for Overlord, the USAAF squadrons flew primarily to drop supplies to OSS- and SOE-supported resistance groups. After the Normandy landings, the number of personnel drop missions increased dramatically as special force teams and additional OSS-SI agents were infiltrated into the French interior.

In addition to providing air support for OSS operations, the USAAF squadrons can share credit with the RAF for providing substantial support for the SOE in France. Wartime records reveal that the AAF squadrons flew a considerable number of missions to arm SOE's resistance circuits from January 1944 onwards. This was primarily because there were far more SOE-sponsored resistance groups than OSS-sponsored groups due to the latter organization's late start. The SOE had been setting up resistance circuits in France since 1941, three years before the OSS got into its stride. As a result, when the AAF units in North Africa and in the United Kingdom began flying supply-drop missions in October 1943 and January 1944 respectively, they were usually parachuting arms to partisan groups organized by the SOE, not OSS.

In months for which detailed records exist, it is clearly shown that the AAF squadron in North Africa flew the majority of the missions. In some cases an overwhelming preponderance of the missions was done for the SOE. Of seven supply drops to French resistance groups by the 122d Bomb Squadron in April 1944, six were for the SOE, one for the OSS.¹¹⁴ In May 1944 the same squadron successfully completed 47 drops, of which 42 were for SOE and only five were for OSS.¹¹⁵ Another MAAF report, describing the surge of sorties for Overlord during the period from 1 to 19 June 1944, showed that the 885th Bomb Squadron flew 69 successful missions to France, of which 60 were for SOE and only nine were for OSS.¹¹⁶ These were not unusual months. In September 1944, the final month of operations to France, this squadron completed 69 missions for SOE and the French secret service, one for SIS, and only nine for OSS.¹¹⁷

The important implication of these statistics is that the USAAF units involved in the French campaign made a substantial contribution not only to the activities of the OSS in France but to the overall SOE-OSS-French resistance effort. It is, therefore, prudent to assess the effectiveness of the AAF's special operations effort within the context of the accomplishments of the overall clandestine campaign and not just in consideration of the achievements of the OSS, as has been conventional wisdom in the past.

On every moonlit night from January 1944 to the culmination of the campaign nine months later, black-painted B-24s and B-17s from England and North Africa roamed at will over France accomplishing covert missions. The unit based at Algiers flew a handful of missions to Italy in addition to its French operations. Likewise, the Carpetbagger unit flew missions to Belgium and Holland, and a few to Denmark and Norway.¹¹⁸ The overwhelming focus, however, was always on France.

On the afternoon of 5 June 1944, less than 12 hours before the paratroop landings on Normandy were to mark the first wave of the Overlord assault, SHAEF directed SFHQ to send signals to its clandestine forces in France, calling them to action. In response, OSS agents, SOE agents, and French partisans immediately began a wave of sabotage and guerrilla warfare actions to assist the invasion forces. With the arrival of D day, SFHQ unleashed a flood of military supplies to resistance groups, all delivered by air. Hundreds of Special Forces teams, Jedburghs, and operational group sections were parachuted into the French interior to bolster the partisans and to attack specific targets.

With the launching of the assault on Normandy, the tempo of AAF special operations from Blida and Harrington airdromes surged tremendously. For the next three and one-half months the 885th Bomb Squadron and the 801st Bomb Group exerted a maximum effort in support of the Overlord and Anvil/Dragoon operations. In the month prior to D day, the two USAAF units flew a combined total of 288 missions to the continent. In June the number of missions jumped to 442. In July and August it jumped to 680 sorties per month. In September, as the campaign in France wound down, 454 missions were flown.¹¹⁹

In operations supporting the French campaign, the American special operations units infiltrated 830 persons and air-dropped 4,636 tons of supplies.¹²⁰ A total of 2,851 missions were flown, with 2,080 successfully completed.¹²¹ In pickup operations by the 801st Bomb Group, Carpetbagger C-47s completed 35 missions, inserting 76 persons and delivering 52 tons of weapons and ammunition to landing zones in France. In addition, a total of 213 persons were extracted from France by the C-47s.¹²² The 885th Bomb Squadron completed two B-17 landing operations to airfields taken over by the Maquis. One mission was flown to Toulouse on 17 September and another to Istres on 26 September. These two operations delivered four agents and approximately five tons of supplies to the French forces.¹²³

The Special Operations branch of OSS/London inserted approximately 311 of its personnel behind the lines in France. Of these, the RAF Special Duties squadrons probably infiltrated the majority of the 85 SO F-Section agents, while the 801st Bomb Group infiltrated the vast majority of the remaining 226 OSS personnel. The Carpetbaggers parachuted eight operational group sections, with a total of 173 troops, into France. Of the 276 Jedburghs parachuted into France, 83 were OSS personnel, infiltrated primarily by USAAF aircraft. Approximately 60 OSS Jedburghs were infiltrated into France by the Carpetbaggers.

In addition, the 801st Bomb Group infiltrated 60 Sussex intelligence agents for the Secret Intelligence branch of OSS/London. The Carpetbaggers dropped 46 Proust Project intelligence agents into France for SI/London.¹²⁴

The Special Operations branch of OSS/Algiers, relying on the support of the 885th Bomb Squadron, infiltrated 212 of its men into France during the summer of 1944. These consisted of 182 OGs from 14 operational group sections, 21 Jedburghs, and nine SO agents.¹²⁵ The 885th Bomb Squadron also infiltrated intelligence agents for SI/Algiers. By D day for Anvil/Dragoon on 15 August 1944, SI/Algiers had 17 separate intelligence networks operating in southern France. The vast majority of these networks was organized by agents infiltrated by the 885th Bomb Squadron.

The Battle Is the Payoff

Success in the War Behind the Lines

The focus of this study is specifically limited to the activities of the USAAF special operations units, but an analysis of their significance as contributors to the Allied victory is unavoidably interrelated with the accomplishments of the guerrilla warfare teams, intelligence agents, and resistance groups they supported. Although it is impractical here to present a detailed account of the combat achievements and intelligence successes of the clandestine warfare elements supported by the American air units, this section will present some examples of these ground operations as evidence of the value of the overall effort.

A major task given to SFHQ by SHAEF was to delay German reinforcements and reserves as they moved toward Normandy after D day. During June through August 1944, Special Forces units made 885 rail cuts and 75 road or waterway cuts, and destroyed 322 locomotives.¹²⁶ During July and August, the German Seventh Army reported more rail cuts by sabotage than by air attack.¹²⁷ SFHQ's own figures may be significantly understated. German intelligence reported to the Wehrmacht high command that 295 locomotives were destroyed by sabotage during June alone,¹²⁸ though SFHQ credited its forces with only 50 locomotives destroyed.¹²⁹ In addition, 24 road convoys were ambushed. Nearly all of the 800 strategic targets identified by SHAEF for destruction by SFHQ were destroyed by Special Forces elements within one week of D day.¹³⁰ The Twenty-first Army Group reported that resistance operations during the first 10 days of Overlord had "resulted in an average delay of 48 hours being imposed on movement of German formations to the bridgehead area."¹³¹ In southern France, the strategic Saint Bernard Pass was completely closed for several days.¹³²

OSS operational groups took part in dozens of combat actions throughout France, destroying 32 bridges, cutting 11 power lines, mining 17 roads, and destroying 33 vehicles, three locomotives, and two trains. The OGs killed 461 German troops, wounded 467, and captured over 10,000 prisoners.¹³³ OG losses were 10 killed and four missing.¹³⁴

Other kinds of activities were also useful. At the request of Lt Gen Omar Bradley, irregular forces were directed to cut German land-line communications in an effort to force the Germans to use their radios. These could be intercepted, deciphered by ULTRA, and exploited.¹³⁵ Telecommunications were cut 140 times between June and August.¹³⁶ A total of 44 industrial targets were sabotaged during this same period. And finally, Special Forces ground units were credited with shooting down seven Luftwaffe aircraft.¹³⁷

The daily commentaries recorded in the war diaries of the German high command for France methodically bear witness to the continuous disruption, destruction, and diversions caused by Allied irregular forces.¹³⁸ In the weeks immediately preceding the landings in Normandy, German army units were engaged all across France in "antiterrorist" campaigns. The 157th Reserve Division was heavily engaged in the mountainous Jura region for several weeks in April.¹³⁹ Starting the middle of May, the 2d SS Panzer Division (Das Reich) was involved in operations against Special Forces elements in southern France for three weeks. As late as 3 June, the division was still hunting guerrillas in the French countryside.¹⁴⁰

The 2d SS Panzer Division was one of the most important units to be harassed and delayed by the irregular forces. Being an over-strength armored division with substantial combat experience on the Eastern Front, the disposition and post-D day intentions of Das Reich was of great interest to SHAEF. After SI agents from OSS/Algiers spotted the 2d SS Panzer moving out of its base near Toulouse on 8 June, SFHQ ordered Special Forces elements to impede its movement toward Normandy.¹⁴¹ The Panzer division

was subjected to numerous acts of sabotage and ambush as it moved north. Estimates regarding the length of its delay in arriving at the Normandy front (as a result of these attacks) are as high as 13 days¹⁴² and as low as five days.¹⁴³ Even if the latter figure is closer to the truth, this delay was extremely beneficial to the hard-pressed American and British divisions struggling on the Normandy beachhead.¹⁴⁴ After the French campaign, one SHAEF report credited "French resistance with the remarkable feat of preventing Rommel's regroupment of forces for a full four weeks after D Day."¹⁴⁵

Several other German divisions found themselves fighting guerrillas instead of confronting the main threat in Normandy. On 20 June the 11th Panzer Division was sent on antiguerrilla operations in the 15th Army Group region.¹⁴⁶ Army Group G sent its 11th Antitank Battalion after the guerrillas on 22 June.¹⁴⁷ During the critical weeks after D day, major elements of eight German divisions and numerous other smaller Wehrmacht units were used on major antiguerrilla campaigns while the decisive battle raged in Normandy.¹⁴⁸ Although some of these divisions were undeniably second-rate units, the Allied guerrilla forces also harassed several front-line units, including the 2d SS Panzer, 11th Panzer, and 2d Panzer Divisions.¹⁴⁹

OSS intelligence operations, particularly those of OSS/Algiers in support of Anvil/Dragoon, were given extremely high marks by top Allied field commanders.¹⁵⁰ General Patch, the commander of the Seventh Army, which spearheaded the assault on southern France, remarked on the "extraordinary accuracy" of OSS reports on German anti-invasion defenses.¹⁵¹ In describing the OSS contribution in southern France, a senior officer on the G-2 (Intelligence) Staff of AFHQ wrote:

The intelligence provided for Operation "DRAGOON" was probably the fullest and most detailed of any provided by G-2, AFHQ in a series of combined operations commencing with "TORCH". . . . I consider that the results achieved by O.S.S. in respect of Southern France before DRAGOON so outstanding that they should be brought to the attention of interested authorities.¹⁵²

Intelligence operations by SI/London were also singled out for commendation by Allied field commands. OSS Ossex agents of the Sussex project dispatched 1,164 items of order of battle information by radio to London. These reports were specifically commended by the intelligence chiefs of the US First Army, US Third Army, and the 12th Army Group.¹⁵³ One series of reports by an Ossex agent team was deemed "exceptionally able and useful" in the early stages of Overlord by the chief of intelligence for SHAEF.¹⁵⁴ A British officer from Field Marshal Montgomery's 21st Army Group noted that the discovery and positive identification of the crack "Panzer Lehr" Division in Western France prior to D day by OSS-SI team Vitrail "was sufficient to justify all the work that had been put into the Sussex project."¹⁵⁵

Finally, in judging the overall value of the American air operations, one cannot disregard the moral contribution they made to the French national

spirit by arming the forces of resistance. USAAF special operations units were major contributors in these accomplishments.

The Costs of US Army Air Forces Special Operations in France

An analysis of USAAF special operations in the French campaign must account for the cost paid for the effort. This cost may be measured two ways. First is the price paid in aircraft losses. In operations over France the Carpetbagger group lost 13 B-24s. The 122d/885th Bomb Squadron did not lose any aircraft in combat over France. In addition, one B-17 of the 122d Squadron and two B-24s of the Carpetbagger group crashed in noncombat accidents. Since the accidental losses were not related to the specific operational role performed by the units, they would not count in the cost. The total combat cost in casualties was, therefore, 13 B-24s lost.

The second measure of cost is the number of aircraft allocated for special operations and, therefore, not available for other duties. The Special Flight Section/68th Reconnaissance Group used three B-17s from September 1943 through March 1944. When the 68th Reconnaissance Group evolved into the 122d/885th Bomb Squadron, this number was increased from April through September 1944, with an additional 23 B-24s. The Carpetbagger Project was assigned 32 B-24s from November 1943 to May 1944. It must be remembered, however, that these particular aircraft were extensively modified for antisubmarine warfare and were not usable for bombing operations. The Carpetbagger total was increased to 64 B-24s from May through September 1944, plus four C-47s from June through September 1944.

Thus from September to November 1943, the total AAF commitment was three planes (B-17s). From November 1943 to April 1944, the AAF total was 35 (three B-17s, 32 B-24s). From May to June 1944, it increased to 47 planes (three B-17s, 44 B-24s). From June to September 1944, the USAAF special operations force reached a peak strength of 83 aircraft (three B-17s, 76 B-24s, four C-47s). If one discounts the 32 antisubmarine warfare planes, the total is 51 aircraft dedicated to special operations, including 47 front-line B-17s and B-24s which could otherwise have been used for bombing operations. The cost to the AAF for diverting aircraft to the special operations role was 47 front-line bombers unavailable for bombing operations and 13 airplanes destroyed in combat.

By mid-September 1944 the Germans in France had been utterly defeated. Isolated pockets of troops in fortified positions continued to hold out, but these were insignificant. The Allied ground armies from Normandy and the Riviera linked up and pushed to the very borders of Germany. On 12 September the 885th Bomb Squadron flew its last sorties to France.¹⁵⁶ On 17 September the Carpetbaggers ceased operations. The second Battle of France was over. The Allies had won a decisive victory over the Wehrmacht.

The French campaign marked a proud and important chapter in the history of American air power. It also marked the birth of USAF Special Operations Forces. Though the AAF leadership was often reluctant to embrace the new and unfamiliar mission, they eventually overcame their hesitation and created a highly effective clandestine air capability in time for Overlord. Gen Ira Eaker played a particularly useful role in the development of this first-rate combat force. Starting from scratch in September 1943, the Special Flight Section pioneered the way with its three B-17s. By June 1944, as Eisenhower's divisions fought their desperate battle in Normandy, the force had grown to five full squadrons. In their French operations these squadrons developed, refined, and perfected a doctrine for special operations that remains essentially unchanged today.¹⁵⁷ During 12 months of operations, the USAAF special operations squadrons provided essential support to American, British, and French guerrilla forces and intelligence operatives and made a significant contribution to the decisive victory in France.

After the campaign was over, General Eisenhower generously praised the military effectiveness of the efforts of the Allied clandestine elements. In an official letter sent to the commander of the OSS Section of Special Force Headquarters, Eisenhower wrote,

In no previous war, and in no other theater during this war, have resistance forces been so closely harnessed to the main military effort. . . . I consider the disruption of enemy rail communications, the harassing of German road moves and the continual and increasing strain placed on the German war economy and internal security services throughout occupied Europe by the organized forces of resistance, played a very considerable part in our complete and final victory.¹⁵⁸

In war, some military operations are clearly capable of genuinely decisive results, while many others—though not decisive of themselves—contribute significantly to the overall effect. The true value of USAAF special operations was that they, like other ancillary activities in the French campaign, eased the burden of the conventional forces and improved the tactical situation, enabling the decisive elements to successfully fulfill their potential with less difficulty. It was perhaps inevitable that the Allies, with their preponderance of troops and material and total air supremacy, would be victorious in France. However, in performing their anonymous part in the campaign, the USAAF special operations squadrons made that inevitable victory come sooner, at a higher cost to the enemy, and at a lower cost to the Allies.

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After the Allied victory in France, the Carpetbaggers went on to accomplish special operations missions over Norway, Denmark, and finally, over Germany itself. The 885th Squadron redeployed to southern Italy where it began

flying secret missions into northern Italy, eastern Europe, and the Balkans. In the massive and perhaps premature demobilization of the AAF after V-J day, the special operations units completely disappeared, as did the OSS itself in October 1945. The outbreak of the cold war in the late 1940s saw the rapid rebuilding of the US defense and security establishments.

The Central Intelligence Agency (CIA) was created in 1947 as America sought to rebuild the intelligence and clandestine action capabilities that were lost when President Truman dismantled the OSS. Unlike the OSS, the CIA was definitely a civilian organization, which specialized in covert activity primarily in "peacetime." As a consequence, the CIA had few requirements for an overtly military (US Air Force) clandestine air capability.¹⁵⁹ By 1952, however, the Defense Department also recognized the need to rebuild its lost clandestine warfare capabilities. This led to the creation of the US Army's Special Forces, which based its doctrine on the wartime experiences of the OSS Special Operations Branch.¹⁶⁰ To support the Special Forces and, to a lesser extent, the CIA, the USAF activated three Special Operations Wings, which were given the innocuous cover designation of Air Resupply and Communications (ARC) Wings.

The rebirth of AFSOF did not last long. Eisenhower's decision to forsake conventional forces for reliance on a massive nuclear capability severely damaged all USAF nonnuclear capabilities. The ARC wings were inactivated by 1953.¹⁶¹ The last active duty ARC squadron was gone by 1956.

With John Kennedy's administration came the rebuilding (once again) of America's conventional military forces and, with it, a small USAF special operations capability. Though most of the USAF's new Special Air Warfare units were created for the counterinsurgency role, a few were created for the "unconventional warfare" (special operations) role. The deployment of the C-130E Combat Talon force in 1965-67 symbolized the resurgence of the USAF's interest in special operations.¹⁶²

In the late 1970s the AFSOF suffered severely in the general post-Vietnam drawdown. By 1979 the AFSOF order of battle was down to 26 aircraft.¹⁶³ The disaster at Desert One in April 1980 tragically reminded the president, the US military establishment, and the American people of the cost of dismantling AFSOF. At the insistence of the US Congress, the AFSOF were expanded and modernized in the 1980s.

In today's USAF the classic special operations mission of infiltrating, sustaining, and extracting SOF teams is performed by MC-130 Combat Talon Black Birds, MH-53 Pave Lows, and MH-60G Pave Hawks.¹⁶⁴ Though the US Army Special Forces retain the ability to organize and train partisans, as the OSS did in France in 1944, the need for that type of long-term activity has probably diminished. Accordingly, a significant part of today's US Army and Navy SOF are trained, equipped, and ready to execute unilateral strategic special operations, raids, and surgical direct action strikes.

From Carpetbaggers to Scud Hunters

It would be difficult to count the number of air power lessons learned by the United States Air Force from the experience of World War II. Although the great battles and campaigns of that war occurred half a decade ago, contemporary air power doctrine is still significantly influenced by the air war of 1939-45 or, to be more precise, it is influenced by what has been read about what happened in that air war.

Within the USAF today we frequently hear references to the wartime experiences of its predecessor, the USAAF. Our ideas about the most effective methods to achieve air superiority are still influenced by the memories of short-ranged Thunderbolts and long-ranged Mustangs over Western Europe. Few serious discussions about the efficacy of air interdiction fail to mention Operation Strangle in Italy in 1944. Debates over centralized control of air power often include references to USAAF experience in North Africa in early 1943. Arguments regarding the potential of independent strategic air offensive operations continue to recall the daylight precision bombing effort against Germany. And so it goes. The air battles of World War II produced a wealth of ideas and conclusions that have influenced the way we think about every classic role of air power, from the strategic offensive to the counterair campaign, from airlift to reconnaissance, from close air support to interdiction. Despite 50 years of advances in weapons technology, we still shape much of our current doctrine, many of our planning decisions, and even ideas about combat tactics on perceived lessons from an air war that ended in 1945.

Fifty years have passed since the all-black Carpetbagger B-24s prowled the night skies over France. In the summer of 1944, AFSOF of the USAAF proved itself in a long and difficult battle. The USAAF SOF units demonstrated and validated their important, unique, and effective role in the conduct of special operations against a formidable conventional foe. One may ponder if their operations have any relevance for today's Air Force. Is their doctrine still valid? Can AFSOF still operate effectively over enemy territory in modern conventional war? Can SOF still wreak havoc in the rear areas? Has high-technology air power made special operations in conventional warfare unnecessary? There are important examples of successful AFSOF operations in conventional warfare since 1945. The latest case, Operation Desert Storm, provides us with some very up-to-date answers to the questions posed above.

On the second day of the Persian Gulf War, the Iraqis unleashed a barrage of SS-1 Scud ballistic missiles at Israel in an attempt to draw Israeli retaliation. Though the Scuds were an inaccurate and militarily ineffective weapon, they were potentially devastating to the allies, for political reasons. Saddam Hussein's strategy was apparently to entice Israel into the war, thus causing

the Arab contingent of the allied coalition to cease operations against Iraq. Continued Scud attacks on Israel could conceivably cause the disintegration of the whole allied war effort.¹⁶⁵ With this scenario in mind, the Iraqi Scuds became a top priority target for allied air power.¹⁶⁶ Unfortunately, the relatively small and highly mobile Scud batteries proved to be extremely elusive targets for American fighter-bombers. Despite determined efforts to find and destroy the missiles using air power alone, the Scud batteries continued to launch their missiles at Israel.

The decision was made to infiltrate allied special operations forces into the Scud launch areas to find and destroy the Scuds or to mark them for destruction by air attack. The mission was given to US Army SOF and the British Special Air Service (SAS).¹⁶⁷ USAF SOF helicopters, in conjunction with US Army Special Operations Aviation, successfully inserted several US SOF teams into the "Scud boxes" in eastern Iraq. Although details regarding specific events, SOF units, tactics, and equipment remain wrapped in security, some general information regarding the effectiveness of these strategic special operations has emerged since the war ended.

Results indicate that the SOF teams were extremely successful in locating and destroying the Scud mobile missile batteries. The SOF teams accomplished direct action raids on some Scuds and pinpointed other batteries for destruction by USAF F-15Es and A-10s.¹⁶⁸ In one particularly successful operation, a US SOF team located and marked a group of 29 Scud launchers in the act of preparing to fire a massive salvo at Israel. After the team called in USAF fighter-bombers every Scud battery was destroyed before any could launch its missile. In all, the SOF teams located and destroyed, or designated for destruction, approximately 40 Scud launchers.¹⁶⁹

Once again, AFSOF doctrine was proven in high intensity combat. The SOF role in the Scud hunting campaign was a classic joint special operation, combining AFSOF's ability to transfer combat power directly into the enemy's vulnerable rear areas, with the inherent strengths and persistence of SOF ground combat forces. Together, the SOF air power-ground force partnership achieved a decisive strategic objective: it kept Israel out of the war by stopping the Scud attacks on Tel Aviv. The SOF role in the "Great Scud Hunt" was essential, successful and, in this particular case, decisive.¹⁷⁰

It is not the purpose of this paper to overstate the efficacy of Air Force Special Operations Forces. AFSOF, and the Army and Navy SOF they support, should be recognized, appreciated, and supported because of the unique and valuable role they have demonstrated in high intensity conventional warfare. The rear areas behind the front lines continue to be lucrative hunting grounds for SOF. The experience of American air and ground SOF in France and in Iraq, demonstrates the worth these forces can have in high-intensity warfare.

Notes

1. Gordon A. Harrison, *Cross-Channel Attack* (Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1951), 6–8.
2. *Ibid.*, 13–32.
3. Leo J. Meyer, "The Decision to Invade North Africa (Torch)," in *Command Decisions* (Washington, D.C.: Center of Military History, 1990), 178–88, 196–98.
4. Thomas E. Griess, ed., *The Second World War: Europe and the Mediterranean* (Wayne: Avery Publishing Group, Inc., 1989), 181–91, 192–96.
5. Harrison, 48–52.
6. *Ibid.*, 164–73.
7. Griess, 255–57, 265–68.
8. Harrison, 173–182; Griess, 261–65.
9. Harrison, 198–207.
10. Thomas F. Troy, *Donovan and the CIA* (Frederick: University Publications of America, Inc., 1981), 5–16. Strategic Services Unit, *War Report of the OSS*, vol. 1, 5–8.
11. History Project, Strategic Services Unit, *War Report of the OSS*, vol. 1, 7–8. Author's note: "Wild Bill" Donovan was America's most highly decorated combat soldier in World War I. Among his many decorations was the Medal of Honor. During that war he commanded the predominantly Irish "Fighting Forty-Ninth" Battalion of the famed "Rainbow Division." After the war he reentered civilian life and became a prominent and popular Wall Street lawyer, politician, and public servant. A self-made millionaire, he had deep interest in world affairs which led to his eventual selection as head of the COI and OSS. Importantly, due to his pre-World War II reputation, Donovan was well known, well connected, and widely respected by many of the senior American political and military leaders of World War II. See Anthony Cave Brown, *Wild Bill Donovan, The Last American Hero* (New York: Times Books, 1982).
12. History Project, vol. 1, 18–26.
13. *Ibid.*, 179–80.
14. *Ibid.*, 206–07.
15. *Ibid.*, 3, 141, 143.
16. *Ibid.*, 141, 166–69.
17. History Project, Strategic Services Unit, *War Report of the OSS*, vol. 2, 141. Kermit Roosevelt, ed., *The Overseas Targets* (New York: Walker and Company, 1976), x.
18. Nigel West, *MI 6* (New York: Random House, 1983), 143–48.
19. History Project, vol. 2, 173.
20. M. R. D. Foot, *SOE In France* (London: Her Majesty's Stationary Office, 1966), xvii–xviii, 150–53.
21. History Project, vol. 2, 144, 168–69.
22. *Ibid.*, 191–93.
23. Office of Strategic Services, *War Diary, SO Branch, OSS London*, vol. 4, *JEDBURGHs*, OSS/London, 1945, i–vi. National Archives, records group 226.
24. Office of Strategic Services, *War Diary, SO Branch, OSS London*, vol. 12, *Basic Documents*, OSS/London, 1945, 139–45. National Archives, records group 226.
25. Robert Jackson, *The Secret Squadrons* (London: Robson Books, 1983), 10–18.
26. *Ibid.*, 22–23.
27. Foot, 74–79.
28. Foot, 60–80. History Project, vol. 2, 146, 171, 186–87, 189–90.
29. Kenneth A. Merrick, *Flights of the Forgotten* (London: Arms and Armour Press, 1989), 17.
30. Hugh Verity, *We Landed by Moonlight* (London: Ian Allen, 1978), 15–18.
31. Merrick, 17–18.
32. Kenneth A. Merrick, *Halifax* (London: Ian Allen, 1980), 90–95.
33. James J. Halley, *The Squadrons of the Royal Air Force* (London: Air Britain, Ltd., 1980), 144, 167, 174–75, 185, 340.
34. History Project, vol. 2, 171.

35. Wesley F. Craven and James L. Cate, *The Army Air Forces in World War II*, vol. 2, *Europe—Torch to Pointblank* (Washington, D.C.: Office of Air Force History, 1983), 311.
36. JCS 170/1, OSS/NATO Records, Miscellaneous File. National Archives, records group 226, entry 97.
37. Ibid.
38. History Project, vol. 2, 166.
39. Ibid., 171.
40. Ibid., 173.
41. Ibid., 174.
42. Ibid., 59.
43. Ibid., 174–75.
44. "Circuit" was the term used by the SOE to describe a cell of resistance fighters. These cells were "closed-circuits" meaning that members of cells were only aware of the identities of their own cell members, not of members of other cells. This was a security precaution designed to limit losses if a cell member was interrogated by German security.
45. Capt Forrest B. Royal (USN), deputy secretary of the JCS, letter to Brig Gen William J. Donovan, director of Strategic Services, 26 June 1943. National Archives, records group 226, entry 97.
46. HQ MAC (Craig) to assistant chief of staff, G-3, AFHQ, letter, 18 June 1943. National Archives, records group 226, OSS/Algiers file.
47. David R. Mets, *Master of Airpower* (Novato: Presidio Press, 1988), 116–17, 153.
48. History Project, vol. 2, 171.
49. Ibid., 171.
50. USAF historical documents usually claim that the activities of the USAAF 1st Air Commando Group mark the origin of USAF SOF. The Air Commandos operated with distinction in the China-Burma-India Theater of Operations from March 1944. As information presented in this paper indicates, the creation of the Special Flight Section in September 1943 marks the true origin of USAF SOF.
51. Special Orders No. 228, Headquarters Fifth Wing, 30 October 1943. From personal papers of Maj Ervin Meyers.
52. Memorandum, OSS/NATO, 5 November 1943. National Archives, records group 226, entry 99, box 18, folder 100a.
53. Information provided by Ervin F. Meyers, navigator from Special Flight Section. Written interviews with author, 19 February 1983, 6 April 1983, 18 October 1983.
54. Ibid.
55. The term *Maquisards* was commonly used as a nickname for the resistance fighters in the southern half of France. It is derived from Maquis, a scrub plant common to the arid hills of southern France and Corsica. The French resistance "army" itself was often known as the Maquis.
56. Mission information from author's written interviews with crew members who flew this mission, including; Paul A. Callis (aircraft commander), Benjamin Matlick (copilot), Ervin F. Meyers (navigator). Also see undated memo describing mission results in OSS/NATO Monthly Progress Report for October 1943. National Archives, records group 226, entry 97.
57. Up to this time the 122d Liaison Squadron and 68th Reconnaissance Group had been used for a variety of roles, from U-boat hunting to fighter crew training. They had rarely, if ever, been used for liaison or observation missions.
58. Military orders of Ervin F. Meyers, 122d Liaison Squadron, November 1943. See also unit history, 885th Bombardment Squadron (Heavy) (Special), April, May, June 1944. USAF AFHRA.
59. The author discussed this airspeed problem with an experienced B-25 pilot in 1992. According to the pilot, it would have been dangerous to try to maneuver the B-25 at the low airspeeds (120–130 miles per hour) and low altitude (800 feet) required in personnel air drops. Though the B-25 will fly at 120–130 miles per hour, its controls are sluggish and the airplane has poor response in maneuvers.

60. The OSS considered staging the B-25s through Corsica on flights to France, but this seemed hopelessly impractical from an efficiency and security standpoint. The B-25s made no flights to France.
61. History, 122d Bombardment Squadron (Heavy), April 1944, as presented in History of 885th Bombardment Squadron (Heavy) (Special), June 1944. USAF AFHRA.
62. History Project, vol. 2, 3.
63. Foot, 13, 74-75, 235.
64. Office of Strategic Services, *War Diary, SO Branch, OSS London*, vol. 6, *Air Operations*, ii-iii. National Archives, records group 226.
65. Ibid., iii.
66. History Section, Eighth Air Force, History of the Carpetbagger Project, 4-10. USAF Historical Research Agency document file no. 520.04-1.
67. Office of Strategic Services, *War Diary, SO Branch, OSS London*, vol. 6, *Air Operations*, vi. National Archives, records group 226.
68. Col Forrest B. Royal, deputy secretary, JCS, to Brig Gen William J. Donovan, director of OSS, letter, 26 June 1943. National Archives, records group 226, entry 97.
69. History of the Carpetbagger Project, reference file. September 1943-May 1944, USAF AFHRA, USSTAF file, file no. 519.463-2.
70. Message, ETOUSA, 26 August 1943. ETOUSA message, referenced in HQ OSS to ETOUSA message, 12 October 1943. See USAF AFHRA, History of 856th Bombardment Squadron (Heavy), 1944.
71. Message, from War Department (CCS) to ETOUSA (Devers), 17 September 1943. USAF AFHRA file no. 519.463-2. Note: CCS approval was required because OSS/London's SO operations were to be accomplished in conjunction with SOE, making them combined operations.
72. Commander, VIII Bomber Command (Anderson) to CG, Eighth Air Force (Eaker), letter, 8 October 1943. USAF AFHRA, USSTAF file, file no. 519.463-2.
73. Roger A. Freeman, *Mighty Eighth War Manual* (London: Jane's Publishing Company, 1984), 106.
74. Harris G. Warren, AAF Historical Office, *SPECIAL OPERATIONS: AAF Aid to European Resistance Movements, 1943-1945, AAFRH-21*, Headquarters Army Air Forces (1947), 32-36, app. 7.
75. OSS/NATO Monthly Progress Reports for October, November, December 1943. Also general OSS memoranda for November, December 1943. National Archives, records group 226, entry 97. Also, Message, 885th Bomb Squadron to HQ MAAF, 8 May 1944. USAF AFHRA, MAAF file, file no. 622.311-1.
76. Message, HQ MAAF (from Eaker, signed by Devers) to War Department (for Arnold), 31 January 1944. USAF AFHRA, MAAF file, file no. 622-311-1.
77. Message, HQ MAAF (Eaker) to British Air Ministry (Portal), 8 February 1944. USAF AFHRA, MAAF file, file no. 622-311-1.
78. Author has been unable to locate a copy of Arnold's message listing questions for Eaker. However, several OSS/Algiers and OSS/Cairo messages in OSS/NATO file refer to Arnold's questions. See National Archives, records group 226, entry 97.
79. USAAF Assistant Chief of Air Staff/Operational Concepts and Requirements (Bombardment Branch) (Roberts) to USAAF Assistant Chief of Air Staff/Plans, letter, 4 February 1944. USAF AFHRA, HQ USAAF file, file no. 145.81-148.
80. USAAF Assistant Chief of Air Staff/Allocations Branch (Bergquist) to Assistant Chief of Air Staff/Plans, letter, 4 February 1944. USAF AFHRA, HQ USAAF file, file no. 145.81-148.
81. USAAF Assistant Chief of Air Staff/Troop Basis Division (Brugge) to Assistant Chief of Air Staff/Plans, letter, 7 February 1944. USAF AFHRA, HQ USAAF file, file no. 145.81-148.
82. USAAF Chief of Operational/Plans Division (Loutzenheizer) to Assistant Chief of Air Staff/Theater Commitment and Implementation Branch, letter, 10 February 1944.
83. Message, HQ MAAF (from Air Marshal John Slessor, deputy air officer commanding, MAAF) to British Air Ministry (Air Chief Marshal Charles Portal, chief of the Air Staff), 9 February 1944. USAF AFHRA MAAF file, file no. 622.311-1.
84. Message, British Air Ministry (Portal) to HQ MAAF (Slessor), 10 February 1944. USAF AFHRA MAAF file, file no. 622.311-1.

85. Message, Air Ministry (Portal) to HQ MAAF (Eaker), 13 February 1944. USAF AFHRA, MAAF file, file no. 622.311-1.

86. Spaatz's 15 February 1944 comment regarding his concession to "augment" the two Carpetbagger squadrons to a strength of 16 planes each is misleading, since Eaker, as commander of the Eighth Air Force, had already decided to assign the squadrons 16 airplanes each as far back as December 1943 and this expansion had been officially confirmed to OSS/London by January 1944. See OSS/London Progress Report, 31 January 1944. National Archives, records group 226.

87. Message, War Department (Arnold) to Devers (for Eaker), 15 February 1944. USAF AFHRA, MAAF file, file no. 622.311-1.

88. Message, from HQ AAF/MTO (Eaker, signed Devers) to War Department (Marshall and Arnold), 19 February 1944. USAF AFHRA, MAAF file, file no. 622.311-1.

89. Brig Gen William J. Donovan, director of OSS, to Gen Henry H. Arnold, commanding general of the AAF, letter, 25 February 1944. USAF AFHRA, OSS file, file no. 187.16A.

90. Donovan (director of OSS) to Arnold (CG of USAAF), letter, 3 March 1944. USAF AFHRA, AC/AS file, file no. 145.81-187. Author's note: Certainly the B-25s were not "useless" as Slessor indicates. The B-25s were effectively performing a valuable mission by dropping supplies to Allied escape and evasion teams operating behind the lines and to partisan groups. The aircraft was, however, limited in range, payload weight, and capacity, and could not drop personnel. Most importantly, the B-25s could not reach the French interior. The B-17 and B-24 were simply better aircraft for these type missions by any standard of measure except maneuverability.

91. Ibid.

92. Warren, 24.

93. Message, Devers to Eaker, 9 March 1944. USAF AFHRA, MAAF file, file no. 622.311-1.

94. B-24s were assigned to the new squadron instead of B-17s because the Fifteenth Air Force was involved in a program to standardize most of its groups on Liberators and they would be easier to maintain than B-17s. The original three B-17s were retained because their experienced crews were needed to conduct training for the incoming new crews.

95. The B-25 element of the 122d Liaison Squadron was removed from that unit and assigned entirely to the 68th Reconnaissance Group in March 1944. With that action, the Manduria-based B-25 unit was organizationally severed from the Blida-based B-17 unit. The B-25s continued operations for only one more month before disbanding in May 1944. Information provided to the author in written interviews with the following former members of the B-25 element of the 122d Liaison Squadron, 68th Reconnaissance Group: Charles Duthie, B-25 pilot and unit operations officer; Donald Warren, B-25 pilot and unit assistant operations officer; Douglas Fiddler, B-25 pilot.

96. History, 885th Bombardment Squadron (Heavy) (Special), July 1944. USAF AFHRA.

97. Harrison, 203.

98. Ibid., 203.

99. Freeman, *Mighty Eighth War Manual*, 106. Note: In August 1944 the 801st Bombardment Group (Provisional) was redesignated as the 492d Bombardment Group (Heavy). At the same time, the group's four squadrons were redesignated as follows: the 36th, 406th, 788th, and 850th Bombardment Squadrons (Heavy) became the 856th, 857th, 858th, 859th bombardment Squadrons (Heavy), respectively.

100. History Project, Strategic Services Unit, *War Report of the OSS*, vol. 2, 191-92.

101. Ibid., 228, 231.

102. Ibid., 208.

103. Ibid., 213-14.

104. History Project, vol. 1, 1-8.

105. *British Intelligence in the Second World War*, vol. 3, Part I (London: Her Majesty's Stationary Office, 1984), 461-64.

106. There is considerable evidence, however, to indicate that the Sicherheitsdienst (SD) or German Security Service and the Geheime Staatspolizei (GESTAPO) learned much about the RAF and AAF special units through interrogations of prisoners and double agents. See Foot, 115-25; *Set Europe Ablaze*, 136-41, 253-76.

107. History, Eighth Air Force, *History of the Carpetbagger Project, Inception to June 1944*, 32. USAF AFHRA, Eighth Air Force file, file no. 520.04-1. Hereafter known as *Carpetbagger Project*.
108. *Ibid.*, 52.
109. Raymond F. Toliver and Trevor J. Constable, *Fighter Aces of the Luftwaffe* (Fallbrook: Aero Publishers, Inc., 1977), 195-204.
110. Gebhard Aders, *History of the German Night Fighter Force, 1917-1945* (London: Jane's Publishing Company, 1979), 55-92.
111. *Ibid.*, 239.
112. *Carpetbagger Project*, 52.
113. Unit History, 801st/492d Bomb Group: January-September 1944. Contains numerous sections on tactics, equipment, training for missions. USAF AFHRA.
114. Monthly Report of OSS/NATO, April 1944. National Archives, records group 226, entry 97, box 26.
115. HQ MAAF Monthly Report for May 1944. National Archives, records group 331 (AFHQ).
116. HQ MAAF Report, USAF AFHRA, MAAF file, file no. 622-311-1.
117. Warren, app. 13.
118. Approximately 83.5 percent of all Carpetbagger sorties were flown to France. Approximately 99 percent of the 122d/885th Bomb Squadrons sorties were to France. An indication of the emphasis and top priority SHAEF placed on French operations is evidenced by the creation of the Ball Project. SFHQ needed to conduct supply drops to Norwegian partisans in the summer of 1944 but was not allowed to divert any Carpetbagger planes or crews for the new project. Instead, the Eighth Air Force was directed to create an entirely new special unit of six B-24Hs just for the Norwegian operations.
119. Complete and accurate statistics for USAAF special operations, especially for the unit based in North Africa, are notoriously difficult to compile. The figures used in this study represent a compilation from a wide variety of official contemporary documents. It is the author's opinion that the figures given in the narration, though often considerably different from those published in previous accounts of these operations, are extremely accurate. The basis for Carpetbagger statistics is the History of the Carpetbagger Project, vol. 3, in History of the 492d Bomb Group (H). USAF AFHRA. Statistics for the 122d/885th Bomb Squadron are an amalgamation of data from the following: Message, 885th Bomb Squadron (Colonel Mac-Closkey) to HQ MAAF, 8 May 1944, and MAAF Monthly Report on Special Operations for May 1944, both from National Archives, OSS records, records group 226. Also, MAAF Monthly Report on Special Operations for June 1944 from USAF AFHRA, MAAF file, file no. 622-311-1; Histories, 885th Bombardment Squadron (Heavy) (Special) for July, August, September 1944, all from USAF AFHRA.
120. Figure based on gross weights delivered, using 330 pounds per container and 50 pounds per package dropped, though packages could weigh as much as 100 pounds.
121. These figures combine the record of the Carpetbagger Group as taken from Warren, app. 7, plus statistics for the 68th Reconnaissance Group from OSS/Algiers Progress Reports for October 1943 through May 1944 (National Archives records group 226, entry 97) and History of the 122d/885th Bomb Squadron (Heavy) (Special), April to September 1944 (USAF AFHRA).
122. History of the 856th Bombardment Squadron (Heavy), July, August, and September 1944. USAF AFHRA.
123. History of the 885th Bombardment Squadron (Heavy) (Special), September 1944. USAF AFHRA.
124. History Project, vol. 2, 214.
125. *Ibid.*, 169.
126. *Ibid.*, 220.
127. Foot, 440.
128. Wehrmacht Intelligence Report on the Normandy invasion, written by German Intelligence Staff, July-August 1944. National Archives, records group 242, milch file 161, microfilm roll 172, 89.

129. History Project, vol. 2, 221.
130. Ibid., 220.
131. Ibid.
132. Kurt Mehner, ed., *Die Geheimen Tagesberichte Der Deutschen Wehrmachtführung Im Zweiten Weltkrieg, 1939–1945*, vol. 10, 1 March 1944–31 August 1944 (Osnabruck: Biblio Verlag, 1985), 435. Hereafter known as *Die Geheimen Tagesberichte*.
133. History Project, vol. 2, 205.
134. Ibid., 220.
135. Ibid., 221.
136. Ibid.
137. Ibid.
138. Mehner. See vols. 10 and 11 for multiple accounts.
139. Ibid., 111, 117, 120, 126.
140. Ibid., 205, 243, 245.
141. History Project, vol. 2, 221, 237.
142. Foot, 397.
143. Max Hastings, *Das Reich* (London: Michael Joseph, Ltd., 1981), 1.
144. See Hastings, 217; History Project, vol. 2, 221; Foot, 397–98.
145. History Project, vol. 2, 221.
146. Mehner, 282.
147. Ibid., 287.
148. Foot, 441.
149. Mehner. For examples see entries on (2 April), (14 May), (2 June), (11 June), (20 June), (28 June), and (5 September 1944).
150. History Project, vol. 2, 236–39.
151. Ibid., 238.
152. Ibid.
153. Ibid., 210–11.
154. Ibid., 211.
155. Ibid.
156. The last airdrop missions to France by the 885th Bomb Squadron were flown on 12–13 September 1944. However, the unit made two B-17 landing sorties to liberated airfields in France on 17 and 26 September 1944, the latter being the unit's last French operation. History of 885th Bombardment Squadron (Heavy) (Special), September 1944. USAF AFHRA.
157. Personal observation of the author based on 12 years of experience in the USAF AFSOF, 1978–90.
158. History Project, vol. 2, 222.
159. Harry Rositzke, *The CIA's Secret Operations* (Boulder: Westview Press, 1988), 18–38.
160. Alfred H. Paddock, Jr., *US Army Special Warfare* (Washington, D.C.: National Defense University Press, 1982), 118–29.
161. Charles A. Ravenstein, *Air Force Combat Wings* (Washington, D.C.: Office of Air Force History, 1984), 288–90.
162. Ironically, these are the exact same 14 MC-130E airframes that make up the core of the USAF AFSOF today.
163. Fourteen MC-130E, six CH-3E, six UH-1N. Total rises to 36 if AC-130H gunships are included.
164. Author's note: AC-130 Spectre gunships were not included because, in the author's opinion, they are more accurately classified as attack aircraft for use in close air support of friendly forces or air interdiction. They do, however, often accomplish these attack missions in support of special operations forces. HC-130 Combat Shadows, also an integral part of AFSOF, are highly specialized air refueling tankers used to extend the range of AFSOF and US Army SOF helicopters.
165. Department of the Air Force, *Reaching Globally, Reaching Powerfully: The United States Air Force in the Gulf War* (Washington, D.C., 1991), 25.
166. Ibid., 24–27.

167. Ibid., 26–27. Department of the Army, “Special Operations in Desert Storm: Separating Fact from Fiction,” *Special Warfare*, March 1992, 4; Benjamin F. Schemmer, “Special Ops Teams Found 29 Scuds Ready to Barrage Israel 24 Hours Before Cease-Fire,” *Armed Forces Journal International*, July 1991, 36; Michael Evans, “SAS mission to cripple Scuds earns 41 awards,” *The Times*, 29 June 1991, 11.
168. Department of the Air Force, *Reaching Globally*, 26; Schemmer.
169. Schemmer.
170. Ibid.

Bibliography

Published Works

- Aders, Gebhard. *History of the German Night Fighter Force, 1917-1945*. London: Jane's Publishing Company, 1979.
- Bechwith, Charlie A. *Delta Force*. New York: Harcourt, Brace, Jovanich, 1983.
- Beevor, J. G. *SOE Recollections and Reflections, 1940-45*. London: The Bodley Head, Ltd., 1981.
- Blumenson, Martin. *Breakout and Pursuit*. Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1961.
- Brown, Anthony Cave. *Wild Bill Donovan, The Last Hero*. New York: Times Books, 1982.
- Casey, William J. *The Secret War Against Hitler*. Washington, D.C.: Regnery Gateway, 1988.
- Cookridge, E. H. *Set Europe Ablaze*. New York: Thomas Y. Crowell Company, 1967.
- Cruishank, Charles. *SOE in Scandanavia*. Oxford: Oxford University Press, 1986.
- Eisenhower, Dwight David. *Crusade in Europe*. Garden City, N.Y.: Doubleday & Company, Inc., 1948.
- Ellis, L. F. *Victory in the West*, vol. 1, *The Battle of Normandy*. London: Her Majesty's Stationary Office, 1962.
- _____. *Victory in the West*, vol. 2, *The Defeat of Germany*. London: Her Majesty's Stationary Office, 1968.
- Fish, Robert W., editor. *They Flew By Night*. San Antonio: 801st/492d Bomb Group Association, 1990.
- Foot, M. R. D. *SOE in France*. London: Her Majesty's Stationary Office, 1966.
- _____. *Resistance*. London: Eyre Methuen, Ltd., 1977.
- _____. *SOE, 1940-1946*. London: British Broadcasting Corporation, 1984.
- Freeman, Roger A. *The Mighty Eighth War Diary*. London: Jane's Publishing Company, Ltd., 1981.
- _____. *The Mighty Eighth War Manual*. London: Jane's Publishing Company, Ltd., 1984.
- _____. *The Mighty Eighth*. Rev ed. London: Jane's Publishing Company, Ltd., 1986.

- Griess, Thomas E., editor. *The Second World War: Europe and the Mediterranean*. Wayne: Avery Publishing Group, Inc., 1989.
- Harrison, Gordon A. *Cross-Channel Attack*. Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1951.
- Hastings, Max. *Das Reich*. London: Michael Joseph, Ltd., 1981.
- _____. *Overlord*. New York: Simon and Schuster, 1984.
- Hinsley, F. H. *British Intelligence in the Second World War*, vol. 3, part I. London: Her Majesty's Stationary Office, 1984.
- Jackson, Robert. *The Secret Squadrons*. London: Robson Books, Ltd., 1983.
- Keegan, John. *Six Armies in Normandy*. New York: Penguin Books, 1983.
- _____. *The Second World War*. New York: Viking, 1989.
- Ladd, James and Keith Melton. *Clandestine Warfare*. New York: Blanford Press, 1988.
- Lorraine, Pierre, adapted by David Kahn. *Clandestine Operations*. New York: Macmillan Publishing Co., 1983.
- MacCall, Gibb. *Flight Most Secret*. London: William Kimber, 1981.
- MacCloskey, Monro. *Secret Air Missions*. New York: Richard Rosens Press, 1966.
- Mehner, Kurt, ed. *Die Geheimen Tagesberichte Der Deutschen Wehrmachtführung Im Zweiten Weltkrieg, 1939-1945*, vols. 10 and 11. Osnabruck, Germany: Biblio Verlag, 1985.
- Merrick, Kenneth A. *Flights of the Forgotten*. London: Arms and Armour Press, 1989.
- Mets, David R. *Master of Airpower*. Novato, Calif: Presidio Press, 1988.
- Paddock, Alfred H., Jr. *US Army Special Warfare*. Washington, D.C.: National Defense University Press, 1982.
- Parnell, Ben. *Carpetbaggers*. Austin: Eakin Press, 1987.
- Parton, James. *Air Force Spoken Here*. Bethesda: Adler & Adler, Publishers, Inc., 1986.
- Pogue, Forrest C. *The Supreme Command*. Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1954.
- Ravenstein, Charles A. *Air Force Combat Wings*. Washington, D.C.: Office of Air Force History, 1984.
- Rositzke, Harry. *The CIA's Secret Operations*. Boulder: Westview Press, 1988.
- Ruby, Marcel. *F Section, SOE*. London: Leo Cooper, Ltd., 1988.
- Smith, Bradley F. *The Shadow Warriors*. New York: Basic Books, Inc., 1983.

- Smith, R. Harris. *OSS—The Secret History of America's First Central Intelligence Agency*. Berkeley: University of California Press, 1972.
- Stafford, David. *Britain and European Resistance, 1940–1945*. London: Macmillan Press, Ltd., 1980.
- Tickell, Jerrard. *Moon Squadron*. New York: Doubleday & Company, Inc., 1958.
- Toliver, Raymond F. and Trevor J. Constable. *Fighter Aces of the Luftwaffe*. Fallbrook: Aero Publishers, Inc., 1977.
- Towle, Philip Anthony. *Pilots and Rebels*. London: Brassey's, Ltd., 1989.
- United States Army. *Command Decisions*. Washington, D.C.: Center of Military History, 1990.
- Verrity, Hugh. *We Landed By Moonlight*. London: Ian Allen, 1978.
- Warner, Philip. *The Special Air Service*. London: William Kimber, 1982.
- _____. *Secret Forces of World War II*. Chelsea: Scarborough House/Publishers, 1991.
- Warren, Harris G. *Special Operations: AAF Aid to European Resistance Movements, AAF Research History 21*. Washington, D.C.: Headquarters, Army Air Forces, Air Historical Office, 1947.
- West, Nigel. *MI6 British Secret Intelligence Service Operations, 1909–45*. London: Weidenfeld & Nicolson, Ltd., 1983.

Official Documents

Records of the Office of Strategic Services, National Archives Records Group 226:

- War Report of the OSS, vol. 1.
- War Report of the OSS, vol. 2.
- Records of OSS/Algiers, entry 97, 144.
- Records of OSS/London, entry 115, 148, 190.
- Records of OSS/Washington, entry 116.
- War Diaries, SO Branch, OSS/London.

USAAF Unit Histories, Air Force Historical Research Agency:

- Bombardment Squadrons: 36th, 122d, 406th, 788th, 850th, 856th, 857th, 858th, 859th, 885th. All 1944.
- Liaison Squadron: 122d. September 1943–November 1943.
- Bombardment Groups: 392d, 801st, 482d, 492d. December 1943–September 1944.

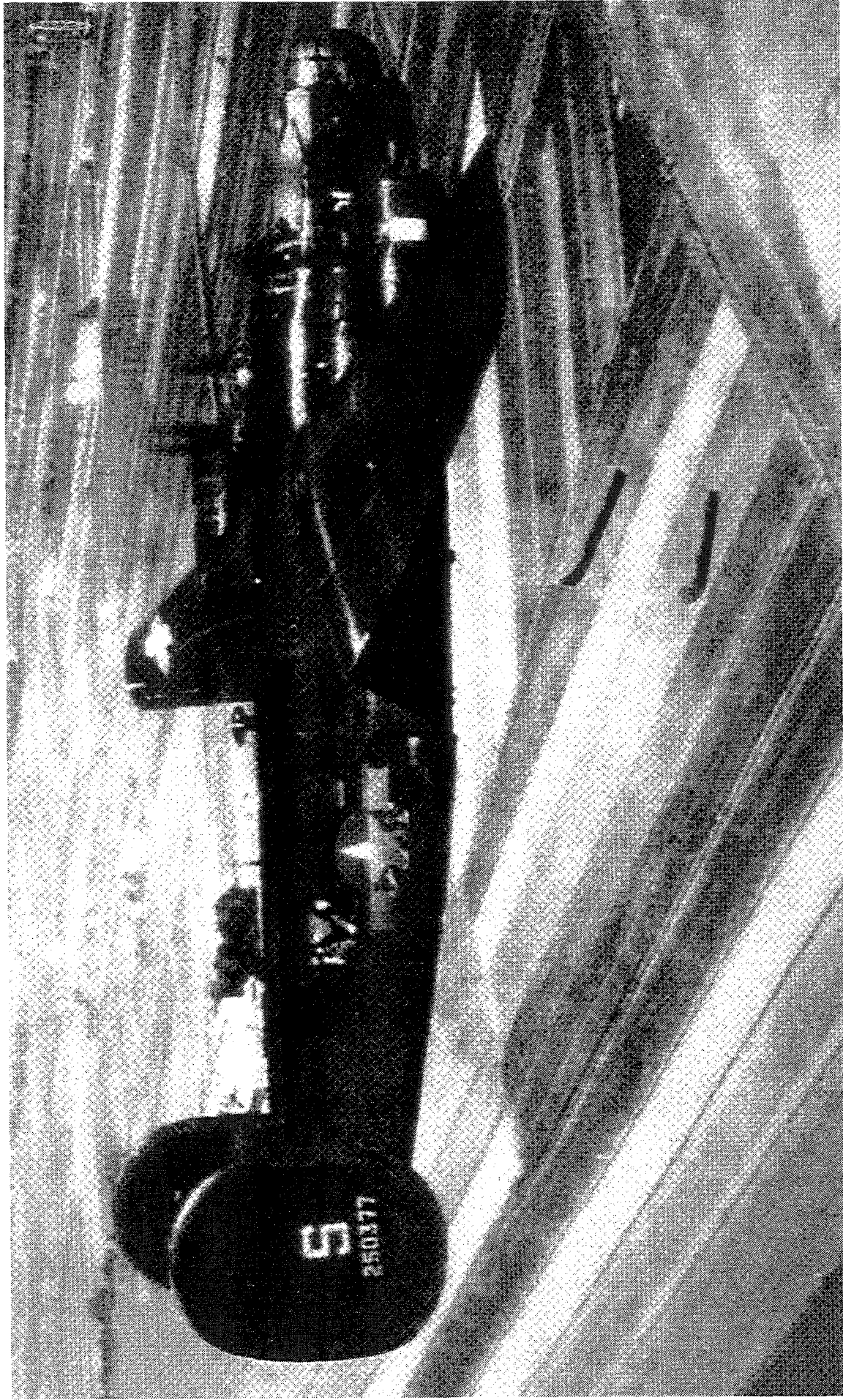
Reconnaissance Group: 68th. September 1943–March 1944.
328th Service Group. February–April 1944.

File Subjects Referenced, Air Force Historical Research Agency:

Allied Force Headquarters. File no. 621.
Eighth Air Force. File no. 520.04-1, 520.809.
Fifteenth Air Force. File no. 670.
Mediterranean Allied Air Forces. File no. 622.311-1.
Office of Strategic Services. File no. 187.16A.
Supreme Headquarters Allied Expeditionary Forces. File no. 505-506.
United States Army Air Forces, AC/AS file. File no. 145.81.
United States Strategic Air Forces. File no. 519.463-2, 3.
VIII Bomber Command. File no. 523.



THE
801ST/492ND
BOMBARDMENT GROUP (H)
ALCONBURY - WATTON - HARRINGTON



B-24 AIRCRAFT COMPLEMENT	69
AIRCRAFT MISSING IN ACTION	26
AIRCREW KILLED IN ACTION	197
AIRCREW KILLED IN TRAINING	11

"CARPETBAGGERS"

NUMBER OF SORTIES	3,000
OSS AGENTS DROPPED	556
TONNAGE TO UNDERGROUND	4,511
NIGHT BOMBING MISSIONS	21